

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF VIRGINIA
ALEXANDRIA DIVISION

UNITED STATES, et al., : Civil Action No.:
Plaintiffs, : 1:23-cv-108
versus : Thursday, September 19, 2024
GOOGLE LLC, : Alexandria, Virginia
Defendant. : Day 9 a.m.
: Pages 1-159

The above-entitled bench trial was heard before the Honorable Leonie M. Brinkema, United States District Judge. This proceeding commenced at 9:15 a.m.

A P P E A R A N C E S :

FOR THE PLAINTIFFS: GERARD MENE, ESQUIRE
OFFICE OF THE UNITED STATES ATTORNEY
2100 Jamieson Avenue
Alexandria, Virginia 22314
(703) 299-3700

JULIA TARVER WOOD, ESQUIRE
AARON TEITELBAUM, ESQUIRE
AMANDA STRICK, ESQUIRE
MICHAEL WOLIN, ESQUIRE
UNITED STATES DEPARTMENT OF JUSTICE
ANTITRUST DIVISION
450 Fifth Street, NW
Washington, D.C. 20530
(202) 894-4266

(State of VA) JONATHAN HARRISON, ESQUIRE
OFFICE OF THE ATTORNEY GENERAL
OFFICE OF THE SOLICITOR GENERAL
202 North Ninth Street
Richmond, Virginia 23219
(804) 786-7704

A P P E A R A N C E S:

FOR THE DEFENDANT: CRAIG REILLY, ESQUIRE
LAW OFFICE OF CRAIG C. REILLY
209 Madison Street
Suite 501
Alexandria, Virginia 22314
(703) 549-5354

KAREN DUNN, ESQUIRE
JEANNIE RHEE, ESQUIRE
BRYON BECKER, ESQUIRE
MARTHA GOODMAN, ESQUIRE
WILLIAM ISAACSON, ESQUIRE
PAUL, WEISS, RIFKIND,
WHARTON & GARRISON LLP
2001 K Street, NW
Washington, D.C. 20006
(202) 223-7300

COURT REPORTER: STEPHANIE M. AUSTIN, RPR, CRR
Official Court Reporter
United States District Court
401 Courthouse Square
Alexandria, Virginia 22314
(607) 743-1894
S.AustinReporting@gmail.com

COMPUTERIZED TRANSCRIPTION OF STENOGRAPHIC NOTES

1 TABLE OF CONTENTS
2

2 WITNESSES

3 On behalf of the Plaintiffs:

4 TIMOTHY SIMCOE

5 Cross-examination by Ms. Dunn	10
Redirect examination by Ms. Wood	85
6 Recross-examination by Ms. Dunn	108

7 JONATHAN BELLACK

8 Direct examination by Mr. Teitelbaum	116
--	-----

9 EXHIBITS

10 On behalf of the Plaintiff:

11 Admitted

12 Number 695	62
Number 904	124
Number 1507	128
13 Number 468	133
Number 285	134
14 Number 239	136
Number 234	138
15 Number 275	141
Number 470	144
16 Number 1543	146
Number 453	149
17 Number 403	150
Number 367	153
18 Number 639	157

19 On behalf of the Defendant:

20 Admitted

21 Numbers 2532 and 2532A	27
Numbers 2533 and 2533A	28
22 Numbers 2066 and 2066A	45

23 MISCELLANY

24 Proceedings September 19, 2024	4
Certificate of Court Reporter	159

25

PROCEDINGS

2 THE DEPUTY CLERK: Civil Action Number
3 1:23-cv-108, United States of America, et al. versus Google
4 LLC.

5 Will counsel please note their appearance for the
6 record, first for the plaintiffs.

7 MR. HARRISON: Good morning, Your Honor.

8 Jonathan Harrison from Virginia on behalf of the plaintiff
9 states.

10 THE COURT: Good morning.

11 MS. WOOD: Good morning, Your Honor. Julia Wood
12 from the Department of Justice on behalf of the United
13 States. With me are my colleagues, Aaron Teitelbaum.

14 MR. TEITELBAUM: Good morning, Your Honor.

15 MS. WOOD: Amanda Strick and Michael Wolin. And
16 Mr. Mene from the U.S. Attorney's Office.

17 We'll note, the United States would like to raise
18 one issue before we continue with Mr. Simcoe's examination
19 this morning.

20 THE COURT: All right. Let's get the defense team
21 on board and we'll start.

22 MS. DUNN: Thank you, Your Honor.

23 Karen Dunn on behalf of Google. And with me is
24 Bryon Becker, Martha Goodman, Craig Reilly, Jeannie Rhee
25 Bill Isaacson and Matt Spalding.

1 THE COURT: Good morning. And Ms. Dunn, I know
2 we -- well, you all told me yesterday that Mr. Simcoe would
3 go on this morning. It's not good to break up, especially
4 experts, and that's why I wanted to hear him now.

5 MS. WOOD: We appreciate that, Your Honor.

6 MS. DUNN: Yeah. And we're prepared to proceed.

7 THE COURT: That's fine. Okay.

8 MS. DUNN: Thank you, Your Honor.

9 THE COURT: Yes, Ms. Wood.

10 MS. WOOD: So, Your Honor, I want to return
11 briefly to the issue of the FAA witnesses that came up
12 yesterday, because it does impact the witness disclosures
13 that we've been receiving from defense counsel.

14 As of last night, we got the -- defense counsel's
15 disclosure of their witnesses, and 6 of their 19 witnesses
16 relate to FAAs. Three are FAA witnesses themselves, and
17 three are account managers at Google for those FAA
18 witnesses.

19 And we respectfully suggest that defense should
20 not be permitted to have their cake and eat it, too, to
21 dismiss the FAA damages claim by paying the amount of those
22 damages, and then still haul all of those witnesses into
23 court.

24 I would note just a couple of facts, Your Honor.
25 One, based on the testimony of these witnesses at their

1 deposition, they were all deposed. None, none personally
2 work with Google's products. They hire advertising agencies
3 to work with those products, and the Court has already heard
4 examination from those advertising agency witnesses, and the
5 defendant has crossed those advertising agency witnesses
6 with the FAA's documents. They crossed Mr. Lowcock with
7 United States Postal Service documents, and they crossed
8 Mr. Lambert with Army documents.

9 In addition, some of these witnesses live more
10 than 100 miles from the courthouse. And perhaps, most
11 importantly, Your Honor, I would refer you to the *Daubert*
12 brief that defendants filed, that is ECF 580. On page 2 of
13 that *Daubert* brief, the defense argued "the FAAs cannot be
14 likened to representative, i.e., average advertisers." and
15 then on pages 26 to 27, they explain why, in their view,
16 FAAs were not representative advertisers in this case.

17 We believe, A, it's cumulative, even if they were
18 representative advertisers; B, they should not be allowed to
19 have their cake and eat it, too; and C, if they are not
20 intending to actually call 6 out of 19 witnesses that are
21 FAA-related, we need to know who, if anyone else, they
22 intend to call so that we can be prepared to examine those
23 witnesses, Your Honor.

24 THE COURT: All right. Ms. Dunn.

25 MS. DUNN: Thank you, Your Honor.

1 So the government has sprung this on us this
2 morning, so I'm not as prepared, obviously, as Ms. Wood, but
3 I will do my best.

4 So, first of all, the Court has not heard in this
5 case from a single actual advertiser who do make decisions
6 about their own advertising campaigns, and we believe that
7 it is Google's entitlement and that it would prejudice us to
8 not put on witnesses in this case who are deposed about the
9 decisions that they made with respect to advertising.

10 I will also say that they don't live outside
11 100 miles; some of them live very close by. They obviously
12 work for the federal government. They live in D.C., they
13 live -- and so if there are any that live outside the
14 100-mile radius, we would be happy not to inconvenience
15 those people.

16 But it is very much an issue in this case that
17 what advertisers' choices are, how they make decisions, how
18 they direct the ad agencies what to purchase, and we think
19 just as the government was permitted to put on numerous
20 people who make advertising decisions, they chose to put on
21 agencies and no advertisers, and put on publishers and the
22 Court even questioned those publishers.

23 THE COURT: That's fine.

24 MS. DUNN: Okay.

25 THE COURT: I think it is fair to allow Google to

1 put on one, maybe two, advertisers. I'm not going to hear
2 from six. Okay.

3 So, again, the cumulative nature of the evidence
4 is becoming problematic, and I'm going to be getting more
5 and more draconian in ruling it out.

6 If this were a jury trial, it would be tried so
7 differently. I cannot tell you how different it would be.
8 So I've given you some leeway, but I'm going to stop doing
9 it.

10 What you need to do -- and I wanted to get into
11 the cross-examination of the witness because I know that
12 Mr. Bellack was also on schedule, so I don't want to
13 postpone that.

14 So over one of the breaks, you all decide which
15 two of the advertisers you want to use, let the government
16 know. And, again, there's some time before that's going to
17 happen, Ms. Wood, so you should have more than enough time
18 to prepare.

19 But it makes sense, and is frankly advantageous,
20 to use an advertiser whom you all know about because you
21 deposed the person rather than pulling some other advertiser
22 out. I mean, you know, you bring in Proctor & Gamble,
23 somebody from Proctor & Gamble who nobody has had a chance
24 to depose; all right?

25 MS. DUNN: Thank you, Your Honor. First of all,

1 we appreciate the Court's indulgence about the way the case
2 has been tried.

3 Google has not called a single witness, so --

4 THE COURT: Don't worry. You can raise the issue
5 when it comes up. All right.

6 MS. DUNN: I am not worried.

7 But my one request, which is relevant to this
8 query, is, we are going to aim to keep these examinations
9 extremely short and non-cumulative, and I think we would
10 just ask the Court's indulgence to potentially call a third,
11 and that's it.

12 THE COURT: I hear it once, I hear it twice, I
13 understand it. All right.

14 MS. DUNN: Okay.

15 THE COURT: You don't need to pile it on.

16 I always tell juries -- and I'm going to follow
17 the same rule -- it's not an issue of who brings the
18 greatest quantity of evidence; it's the quality of the
19 evidence. And one witness alone in whom the Court or the
20 trier of fact has more confidence can outweigh ten witnesses
21 on the other side. So don't worry about quantity; it's the
22 quality. All right?

23 MS. DUNN: Thank you, Your Honor. We appreciate
24 that very much.

25 MS. WOOD: Just briefly I need to address the

1 notion that we sprung this on them this morning. We did
2 reach out to them last night. We were able to
3 meet-and-confer last night.

4 THE COURT: I didn't see any nefarious issue, but
5 I want to get this cross-examination started.

6 MS. WOOD: Understood, Your Honor.

7 THE COURT: Let's go.

8 MS. DUNN: Thank you, Your Honor.

9 CROSS-EXAMINATION

10 BY MS. DUNN:

11 Q Good morning, Dr. Simcoe. Thank you for your
12 flexibility this morning.

13 A Good morning.

14 Q Okay. Yesterday, just to reorient everybody, we were
15 discussing your as-is take rate; do you remember that?

16 A Yes.

17 Q And the as-is take rate is the take rate in the real
18 world; correct?

19 A It's the take rate that Google charges on AdX, yes.

20 Q In the real world?

21 A Correct.

22 Q Okay. And we talked about your 19.8 percent is the
23 as-is take rate that you've assessed Google charges in the
24 real world on AdX.

25 You have also opined that ad exchanges are

1 differentiated products, meaning they're not all the same;
2 is that correct?

3 A That's correct.

4 Q And you named in your report different features and
5 services that differ across exchanges, and I'd like to name
6 the ones that I've seen in your report, and you just can
7 tell me yes or no whether you mention these as different
8 features and services.

9 One is detecting and filtering spam; correct?

10 A That's likely. I don't remember every feature I listed
11 in the report, but I listed several.

12 Q I'm sorry?

13 A I listed various features. I think that was one.

14 Q Okay. Your report is up there with you?

15 A Sure.

16 Q Please open it up to paragraph 70.

17 A Okay.

18 Q Okay. And you're there?

19 A Yes.

20 Q Okay. So do you see where you say: "Ad exchanges
21 provide a distinctive set of features and services that
22 benefit both publishers and advertisers"; do you see that?

23 A Yes.

24 Q And do you see where it says: "These product
25 characteristics include tools for detecting and filtering

1 spam, malware and fraud"; do you see that?

2 A Yes.

3 Q Okay. And then other feature or service that you list
4 are tools for data collection and privacy management; do you
5 see that?

6 A Yes.

7 Q Billing and payments infrastructure; do you see that?

8 A Yes, I do.

9 Q Right. And then another feature you mention is
10 matching publisher inventory to advertiser demand; do you
11 see that?

12 A Yes.

13 Q And you're not backing away today from saying that all
14 of these are features and services that benefit both
15 publishers and advertisers; correct?

16 A Yes. Those are characteristics of exchanges.

17 Q Okay. And you would agree that Google's average as-is
18 take rate, the take rate in the real world that you assess
19 to be 19.8 percent, would reflect the inclusion of all of
20 those features and services; correct?

21 A I would say that most exchanges offer some bundle of
22 characteristics such as this, and that the actual take rates
23 charged by all exchanges reflect relative performance along
24 these dimensions.

25 Q Right. Including Google's; right?

1 A Including Google's.

2 Q Right. And so if Google had superior malware, fraud
3 and spam detection, that would be priced in based on what
4 you just said; correct?

5 A It could be. Although I think I explain in the report
6 that I didn't see evidence that there was substantial
7 differences along these dimensions or that these
8 characteristics were valued highly by customers relative to
9 scale.

10 Q Right. So we'll get to that.

11 I want to understand, based on what you just said
12 that the real-world price charged for -- or rev share for an
13 exchange would include these features, and that if one
14 exchange had superior level of these features, that would be
15 priced in in the real world; correct?

16 A In a market, demand for differentiated products
17 reflects the characteristics of the products, and demand
18 affects pricing. So yes.

19 Q So the answer is yes?

20 A Correct.

21 Q Okay. All right. Let's -- having discussed your as-is
22 take rate, let's discuss how you came up with the but-for
23 take rate. And we discussed, just to remind, that the
24 number in common between your two studies is 16.2 percent.
25 You recall that; right?

1 A I believe I said that there was range of estimates
2 based on different assumptions that I used and different
3 methods that I used. A couple of the analyses came out with
4 a 16.2 percentage point but-for take rate.

5 Q Okay. And so the way that you define your but-for
6 world is by removing three categories of allegedly
7 anticompetitive conduct; right?

8 A Yes.

9 Q And those three categories are, one, the alleged tie
10 between Google Ads and AdX; right?

11 A Yes.

12 Q Two, the alleged tie between AdX and DFP as to access
13 to real-time bidding; right?

14 A Yes.

15 Q And, three, UPR, which we call for short, it's the
16 Uniform Pricing Rules; right?

17 A Unified Pricing Rules, correct.

18 Q Right. Unified Pricing Rules.

19 Okay. So your analysis did not quantify the
20 effects of each separate piece of alleged anticompetitive
21 conduct, the one, two and three we just discussed; correct?

22 A I think -- I explain that the event study provides a
23 conservative estimate, sort of a lower bound of the impact
24 of UPR.

25 THE COURT: That -- sorry. Go ahead. Yeah.

1 MS. DUNN: I think, Your Honor -- if Your Honor
2 has a question, it might be the same as my question.

3 THE COURT: Go ahead.

4 BY MS. DUNN:

5 Q My question, sir, is just that your -- whether it is
6 true that your analysis did not quantify the effects of each
7 separate piece of anticompetitive conduct, the one, two and
8 three we just discussed; that is correct?

9 A That is correct. I did not try to apportion those
10 three things somehow.

11 Q Right. You did not disaggregate, to use an economic
12 term; correct?

13 A I'm not sure how one would do that.

14 Q Right. And you didn't?

15 A Correct.

16 Q Okay. Now, just to put a fine point, you didn't
17 consider one and two together and not three; you didn't
18 consider one and three but not two; and you didn't consider
19 two and three but not one; correct?

20 MS. WOOD: Objection. Compound.

21 THE COURT: No, I think it's understandable.

22 Overruled.

23 THE WITNESS: I considered them, but, as I said,
24 it's not -- it's not clear how one would do that type of
25 analysis. Google has market power from the set of

1 activities. I tried to quantify it.

2 BY MS. DUNN:

3 Q All right. We'll talk about that assumption in a
4 second. I think we agree you didn't do it. All right.

5 So you also do not dispute that if the Court finds
6 that some or all of the conduct you removed in your but-for
7 world is lawful, your analysis cannot measure the effects of
8 anticompetitive conduct; right?

9 A I'm not sure I agree with that.

10 Q Okay. Well, so your but-for world doesn't account
11 separately for these three alleged anticompetitive conducts.
12 So if the Court decides that there's no tie, for example,
13 one or both, your analysis cannot say what the effect is of
14 anticompetitive conduct in this case; right?

15 A I think that you're sort of making a tautology. If the
16 Court says that the competitive -- if the conduct is not
17 anticompetitive, then whatever it is I'm measuring is not
18 anticompetitive is the point you're making, I would just say
19 I'm measuring an economic effect.

20 Q Right. But just to be clear, if the Court decides that
21 any one of those pieces of conduct is not lawful, your model
22 does not help the Court measure anything about
23 anticompetitive effects because those effects would not be
24 based on anticompetitive conduct, we're aligned in that;
25 right?

1 A I measure the effects of the conduct, and the Court can
2 decide whether they're anticompetitive or not.

3 Q Okay. And you believe that there are two tying claims
4 in this case; correct?

5 A My understanding is that the legal claims, there's one
6 tying claim.

7 Q So you understand -- as a legal claim, there's one
8 tying claim in the case; correct?

9 A My understanding.

10 Q Right. So you're not saying as a legal matter there
11 are two tying claims?

12 MS. WOOD: Objection. Foundation. He's not an
13 attorney.

14 MS. DUNN: I'll withdraw.

15 THE COURT: Sustained. Yes.

16 BY MS. DUNN:

17 Q And, to be clear, you've not considered the effect of
18 removing one tie individually in your but-for world;
19 correct?

20 MS. WOOD: Objection. Asked and answered.

21 THE COURT: Sustained. I heard it the first time.

22 MS. DUNN: All right. I'm happy to move along.

23 BY MS. DUNN:

24 Q I'd like to direct your attention, Professor Simcoe, to
25 paragraph 103 of your report. And this is where you discuss

1 the three conducts that define your but-for world. And if
2 you look in your report --

3 A Sorry. Did you say 103?

4 Q 103. We can also put it on the screen for you.

5 A I have it.

6 Q Great. Now, your but-for world, first of all, assumes,
7 A, there's no tie between Google Ads and AdX and, thus,
8 advertisers on Google Ads would be able to use a single
9 buying tool to multi-home among exchanges by submitting bids
10 through multiple paths, including other exchanges with take
11 rates lower than the 20 percent currently charged by AdX.

12 You see that; right?

13 A Yes.

14 Q Okay. And in arriving at your opinions, you do not
15 actually use Google Ads; correct?

16 A Do I use Google Ads? I don't use data from -- well, I
17 think there is some supplementary numbers used in the
18 analysis that rely on data that have Google Ads -- that come
19 from Google Ads, but -- so I guess we would have to clarify
20 the question.

21 Q That's fair enough.

22 You've never used the product; correct?

23 A Have I personally?

24 Q Right.

25 A No.

1 Q Okay. And you've not done any study of how advertisers
2 actually multi-home; correct?

3 A Well, I've seen evidence that advertisers, not
4 necessarily on Google Ads, use different exchanges. So I'm
5 not sure what you mean by study. I haven't tried to measure
6 the extent of multi-homing by various advertisers.

7 Q Okay. And you just said -- is it your testimony that
8 advertisers who use Google Ads do not multi-home?

9 A There are some --

10 MS. WOOD: Objection. Again, beyond the scope of
11 the direct and beyond the scope of the opinions in the
12 report. Subject to the multi-homing is not part of
13 Mr. Simcoe's opinion; it is Professor Lee.

14 MS. DUNN: Your Honor, this is how he defines his
15 but-for world. This is the critical one, two and three
16 critical.

17 THE COURT: Yeah. I think I'm going to overrule
18 that objection. I think how the advertisers work in the
19 real world is significant in this case.

20 BY MS. DUNN:

21 Q You can answer.

22 A Sorry. What was the question?

23 Q Whether it's your testimony that advertisers who use
24 Google Ads do not multi-home.

25 A My testimony is that there is exclusivity between

1 Google Ads and AdX with some minor exceptions.

2 Q Okay. My question is simply whether you're testifying
3 today -- whether users of Google Ads -- advertisers who use
4 Google Ads do not multi-home. Because -- and the reason I'm
5 asking is because you say in the but-for world, the world
6 that doesn't exist, they would be able to multi-home.

7 So is it your testimony that right now, in the
8 real world, they do not multi-home?

9 A My testimony -- yeah. I think -- I would stand by the
10 answer that when using Google Ads, those advertisers are
11 effectively tied to AdX with some very minor exceptions.

12 Q Okay. So by and large, you say they can't multi-home?

13 A I don't, when they're using Google Ads.

14 Q All right. And so are you not aware then that Google
15 Ads' advertisers can bid on multiple exchanges?

16 A These are the minor exceptions we're talking about?

17 Q What minor exceptions are you talking about, I think
18 is ...

19 A Is it --

20 Q Do you need your report for that?

21 A I might. Yeah. I forget what the term was. I think
22 it's AWBid.

23 Q Okay. So you're talking about AWBid. The Court has
24 heard quite a lot about AWBid.

25 And in your report, you do recognize that AWBid is

1 a mechanism where Google Ads' advertisers can bid on other
2 exchanges; right?

3 A Yes.

4 Q And is the reason you're saying it's limited is because
5 you believe it's limited to remarketing?

6 A No.

7 Q Okay. Then you must be aware it's not been limited to
8 remarketing since 2018; right?

9 A I wasn't aware of the date when they removed that
10 limitation.

11 Q Okay. But we can agree, Google Ads' advertisers can
12 multi-home, at least through AWBid?

13 A I think the extent of this is extremely limited. I
14 think -- my recollection is something like -- I forget what
15 the numbers are. But Professor Lee has an analysis of this
16 that shows very few bids are routed through AWBid.

17 Q Okay. But you did no analysis, when you were defining
18 your but-for world -- with respect to Google Ads
19 multi-homing, you did no analysis of that; correct?

20 A As I said, I did not try to measure it.

21 Q Okay. And -- but one thing you did look at is
22 Professor Israel's report. You recall looking at his
23 report?

24 A Yes, I recall looking at Dr. Israel's report.

25 MS. DUNN: Okay. And I'd like to show -- well, I

1 think it would be good if we could just show the witness,
2 but I don't want to show -- because it has numbers in the
3 table.

4 THE COURT: All right. We can just show it to the
5 witness.

6 MS. DUNN: Thank you, Your Honor.

7 BY MS. DUNN:

8 Q The table, Table 1, from Professor Israel's report.

9 MS. WOOD: Do I have a copy of that?

10 MS. DUNN: Professor Israel's report?

11 MS. WOOD: Yeah.

12 MS. DUNN: Do we have Professor Israel's report?

13 Is it possible to also show it --

14 THE COURT: I think we can do it, can't we, Katie?

15 THE DEPUTY CLERK: I turned off the gallery.

16 THE COURT: It will just be on counsel's screen
17 and the witness screen. You probably can't read it anyways.

18 MS. DUNN: Right. This is going to be a very
19 brief point, also because it's too small to read, as the
20 Court points out.

21 BY MS. DUNN:

22 Q All right. You see here in Professor Israel's report
23 that he's listing AdX U.S. spending patterns for selected
24 advertisers from 2019 to 2022 the same basic period that you
25 looked at; right?

1 A Just give me a moment to see if I can figure out what
2 this is.

3 Q Sure.

4 MS. WOOD: Can I just ask that I be able to see
5 the bottom? Thank you.

6 BY MS. DUNN:

7 Q Okay. Do you see that?

8 A Yes, I can see the footnote now.

9 Q So, Professor Simcoe, you can see that this is a list
10 of advertisers who spend on Google Ads. And then if you
11 look all the way over to the right, there's a column of the
12 other buying tools that those advertisers are using; do you
13 see that?

14 A Yes.

15 Q Okay. And you can see on this list -- so I think we
16 can agree looking at this data, that this is a chart showing
17 Google Ads' advertisers multi-homing with other buying
18 tools; do you see that?

19 A Yes.

20 Q And we agree 2019 to 2022 would reflect the real world;
21 correct?

22 A Actually, these are real years, yes.

23 Q Yes. Okay. I guess that's a debatable point.

24 THE COURT: That was the COVID era.

25 MS. DUNN: Yeah. That's very fair. Okay.

1 BY MS. DUNN:

2 Q Okay. But, Professor, you can agree that you see on
3 this list some very large companies; correct?

4 A Correct.

5 Q Okay. And the Court can see them, so I won't name
6 them, but, you know, they're very large, very well-known
7 companies. So to the extent that there's multi-homing
8 between Google Ads' advertisers and third-party buying
9 tools, it's not limited just to very small companies;
10 correct?

11 A So what I was trying to explain is that --

12 THE COURT: No. Wait. I'm sorry. That question
13 is very direct. It's not -- the question is whether or not
14 the buying that you're seeing here is coming from large
15 companies. All right. It's either yes or no that the
16 companies are large or they're not large in your view.

17 THE WITNESS: Yes. These are large companies that
18 buy ads.

19 BY MS. DUNN:

20 Q Okay. Thank you, Professor Simcoe.

21 All right. Now, let's look at something else that
22 you saw in preparation for your report which goes to this
23 issue of multi-homing.

24 You relied on Ms. Lim's report for your rebuttal;
25 correct? And just for clarity, Ms. Lim took over for

1 Dr. Respass, so if you looked at Dr. Respass's report it
2 would be the same.

3 A Yes. There was this transition from Mr. Respass to
4 Ms. Lim.

5 Q Correct.

6 A And there was -- yeah. I relied on some calculations
7 that they did.

8 MS. DUNN: Okay. Now, if we could put on the
9 screen in the same way we did before, just for the witness,
10 the Court and the plaintiffs, Lim Figure 16. All right.

11 BY MS. DUNN:

12 Q And so do you have that in front of you, Professor
13 Simcoe?

14 A Yes.

15 Q Okay. Now, you can see from this that this is a list
16 of the federal agency advertisers; do you see that?

17 A Yes.

18 Q And you can -- I'm not going to go into any of the
19 numbers, but you can see that a number of the federal agency
20 advertisers are using Google Ads and something else;
21 correct?

22 A Yes.

23 Q All right. And just to put a fine point on this, the
24 Center for Medicare and Medicaid Services use Google Ads and
25 DV360; correct?

1 A Correct.

2 Q The National Highway Transportation Safety
3 Administration used Google Ads and DV360; correct?

4 A I think, yes.

5 Q Yes. The Navy use Google Ads, and The Trade Desk;
6 correct?

7 A Yes.

8 Q And then sometimes there's multi-homing that doesn't
9 involve Google Ads, for example, the Postal Service, DV360
10 and The Trade Desk; correct? Is that right?

11 A Yes.

12 Q Okay. And so in paragraph 108 that we discussed, you
13 said that in the but-for world, Google Ads' advertisers
14 would have an incentive to multi-home, but I think we can
15 agree that we've just looked at data that you saw in the
16 reports upon which you relied for your report that show
17 Google Ads' advertisers are multi-homing. You would agree
18 with that at this point; right?

19 A They're not multi-homing necessarily when using Google
20 Ads, but I would agree that those advertisers bid using
21 different tools.

22 Q Right. Using different tools to buy ad space; correct?

23 A Correct. Tools that are in different markets.

24 Q Okay. But if you were a Google Ads' advertiser, like
25 for example if you're NHTSA or CMS or the Navy, you are also

1 using another buying tool?

2 A Yes.

3 Q Okay. Okay.

4 THE COURT: Can we take that down?

5 MS. DUNN: Yes. Thank you, Your Honor.

6 BY MS. DUNN:

7 Q All right. Let's move to --

8 MS. DUNN: Oh, I apologize. Your Honor, we would
9 like to move in Lim Figure 6 -- 16 as DTX 2532.

10 MS. WOOD: Again, Ms. Lim was not testifying
11 because she was part of the damages case that Google sought
12 to dismiss. Other than that, we're fine with that one page,
13 but obviously --

14 THE COURT: All right. That one page is in
15 evidence, 2532.

16 MS. DUNN: 32, yes.

17 THE COURT: Again, though, that's going to have to
18 be redacted.

19 MS. DUNN: Yes.

20 THE COURT: So 32 is the unredacted, 32A will be
21 the one that will be publicly available.

22 MS. DUNN: Yes, Your Honor.

23 (Defense Exhibit Numbers 2532 and 2532A admitted into
24 evidence.)

25 THE COURT: What about the slide from Professor

1 Israel's report.

2 MS. DUNN: We would be happy to move that into
3 evidence, too, as 2533 and 33A under the same circumstance
4 Your Honor just described with the redactions.

5 THE COURT: Any objection to that?

6 MS. WOOD: Obviously subject to him coming and
7 actually testifying to his report, but I assume that will be
8 forthcoming.

9 THE COURT: I'm sure he's testifying. Yes. All
10 right. That's fine. They're both in.

11 (Defense Exhibit Numbers 2533 and 2533A admitted into
12 evidence.)

13 MS. DUNN: I can assure everybody, Professor
14 Israel will be here.

15 BY MS. DUNN:

16 Q Okay. Professor Simcoe, let's direct your attention to
17 the second alleged tie, paragraph 103B of your report.

18 MS. DUNN: And 103 was just up on the screen. You
19 can put it back up.

20 BY MS. DUNN:

21 Q Your but-for world assumes here that there is no tie
22 between AdX and DFP, thus, you say: "AdX advertisers would
23 be able to submit real-time bids into third-party publisher
24 ad servers, making alternatives to DFP more attractive to
25 publishers"; do you see that?

1 A Yes.

2 Q All right. And when you say "making alternatives to
3 DFP more attractive," alternatives to DFP would be
4 competitor ad servers; correct?

5 A Yes.

6 Q Okay. And in your but-for world, is Adx required to
7 submit real-time bids to third-party competitor ad servers?

8 A I don't discuss a requirement. It's a characteristic
9 of the but-for world. It's something they would be able to
10 do.

11 Q Right. But if it's your view that in the real world
12 that's something that's not happening, in your but-for
13 world, for that to happen, if Google isn't doing it on its
14 own, it would have to be required; right? Or compelled?

15 A No. In a competitive world, incentives may just lead
16 to the interests of Google aligning with its customers'
17 interests and then making those connections.

18 Q Okay. So your but-for world is something that you
19 think would just happen?

20 A Well, as I said, if the interests -- well, it's
21 competition. If competition happens, the interests of the
22 customers and the incentives of the exchange to provide
23 real-time bidding into different kinds of ad servers could
24 lead to that type of outcome. So I don't think a
25 requirement is a necessary condition.

1 Q Okay. But that -- just to be clear, that's not a study
2 you did about this alignment of incentives and competition,
3 that's not something in your report; correct?

4 A It's the idea behind this paragraph B, but it's not
5 something I tried to measure.

6 Q Right. Okay. All right.

7 So it is your opinion, though -- and I believe you
8 said this in your deposition -- that in the but-for world,
9 AdX advertisers are able to submit more real-time bids into
10 third-party publisher ad servers.

11 Do you recall saying that?

12 A Not specifically, but it's consistent with what's here.

13 Q Okay. And when you say that AdX advertisers would be
14 able to submit more real-time bids into third-party
15 competitor publisher ad servers, you understand that that
16 would require Google to build additional technical
17 functionality; are you aware of that?

18 A Yes.

19 Q Yes. Okay. And you're not offering an opinion on what
20 additional functionality or how much additional
21 functionality would be required of Google to make this
22 happen; right?

23 A The costs of that are not something I'm an expert in.

24 Q Right. And you didn't look at that at all; correct?

25 A The costs, no, that's correct.

1 Q Right. And, in fact, in your report, you say that "in
2 the actual world, the supplier of a publisher ad server
3 decides whether to invest in integrating its software with
4 various ad exchanges"; you recall that, right?

5 A Yes.

6 Q Right. And you're not saying that some -- strike that.

7 You're not saying that some outcome of this case
8 is that Google should be deprived of the ability to decide,
9 as you say in your report, whether to invest in integrating
10 its software with various ad exchanges; are you?

11 MS. WOOD: Objection. Calls for a legal
12 conclusion.

13 THE COURT: Sustained.

14 BY MS. DUNN:

15 Q Okay. Let's look at paragraph 76 of your report.

16 MS. DUNN: And if we could put that up on the
17 screen, it might make it easier for folks. Okay.

18 BY MS. DUNN:

19 Q There's some discussion in your rebuttal report -- I
20 apologize, it's 76 of the rebuttal report. It's on the
21 screen. That's my fault.

22 Okay. So there's some discussion in your report
23 about quality of ad exchanges, and I want to focus on this
24 paragraph 76 to make sure I understand.

25 You say: "A key dimension of quality for ad

1 exchanges is the installed base of buyers and sellers to
2 which they connect"; do you see that?

3 A Yes.

4 Q And when you say the "installed base of buyers," you're
5 talking about the advertiser customers; correct?

6 A Broadly, yes.

7 Q Right. And when you refer to the "installed base of
8 sellers," you're referring to publisher customers; correct?

9 A Yes.

10 Q Okay. And you say: "This dimension of quality" --
11 meaning these installed customer bases -- "cannot be easily
12 disentangled from Google's exclusionary conduct"; do you see
13 that?

14 A Yes.

15 Q All right. So what you're saying is that the growth of
16 the customer base of a company is -- or of Google, in this
17 case, is an aspect that you cannot disentangle from the
18 alleged exclusionary conduct in this case; right?

19 A Yes.

20 Q Okay. Then moving to the next sentence you say: "Put
21 differently, but for the near exclusivity of Google Ads
22 demand to AdX and the practical barriers to real-time
23 bidding on AdX from outside DFP, I would expect the
24 perceived quality of AdX's rivals to increase"; do you see
25 that?

1 A Yes.

2 Q Okay. So when you say "but for the near exclusivity of
3 Google Ads demand to AdX, the practical barriers to
4 real-time bidding on AdX from outside DFP," you're talking
5 about giving rivals more access to Google's customers;
6 correct?

7 A In effect, that is a piece of this, yes. It's scale.
8 You know, sort of this is speaking to the importance of
9 scale.

10 Q Right. But -- I just want to be very clear, because
11 this is going to be very important in this case.

12 When you're talking about this idea of access to
13 Google Ads demand, you're talking about the customers;
14 right?

15 MS. WOOD: Objection, Your Honor. I would just
16 ask that counsel not have the preambles, like this is going
17 to be very important in this case.

18 MS. DUNN: That's fair. That's fair.

19 THE COURT: Sustained.

20 MS. DUNN: I withdraw.

21 THE WITNESS: I apologize. What -- it's --

22 BY MS. DUNN:

23 Q Okay. When you're saying "but for the near exclusivity
24 of Google Ads demand to AdX," what you were talking about is
25 Google's advertiser customers?

1 A Yes.

2 Q Right. And when you say "the practical barriers to
3 real-time bidding to AdX from outside DFP," what you're
4 talking about is the work it would take for Google -- the
5 technical work for Google to undertake that would make its
6 products more interoperable with its rivals; correct?

7 A The technical work by Google and/or the publisher ad
8 servers.

9 Q Right.

10 A Whoever supplies them.

11 Q Okay. Let's move to Professor Simcoe's two approaches,
12 which he performed to estimate the but-for take rate, the
13 comparables approach and the events study. Okay. Those are
14 the two that you testified to; right?

15 A Correct.

16 Q Okay. I'm going to start with the comparables
17 approach.

18 Now, your comparables approach sought to use the
19 price of transactions not influenced by the relevant conduct
20 as a benchmark to estimate the but-for price. I got that
21 right?

22 A That's fair.

23 Q Okay. And the comparable transactions you chose were
24 from seven non-AdX exchanges; right?

25 A Yes. All of the exchanges that provided usable data.

1 Q Right. We'll talk about that.

2 But just to be clear, you looked at seven, and
3 then you broke out the large exchanges, and the large
4 exchanges were five; correct?

5 A Correct.

6 Q Okay. Now, you have a note in your report that you
7 excluded Yahoo and Equativ from your analysis; is that
8 correct? Right?

9 A Yes.

10 Q And you also did not include Amazon, even though you
11 list it in your report under examples of ad exchanges.
12 That's also correct; right?

13 A My understanding is that they're not operating in the
14 ad exchange during the relevant time period. I don't
15 remember listing them, but it's true that AdX -- sorry.
16 Amazon is not in the data.

17 Q Right. And -- but isn't it also true that on page 131
18 and 132 in your report under examples of ad exchanges, you
19 list Amazon?

20 A Paragraph or page?

21 Q It's Figure 32, and I have page 131 and 132, but that
22 could be -- I'm told that's correct.

23 THE COURT: Do you want to put that on the screen?

24 THE WITNESS: There it is. Yeah.

25 MS. DUNN: Sorry, Your Honor.

1 THE COURT: That will help.

2 BY MS. DUNN:

3 Q I just want to make sure we get in the record that it's
4 there.

5 A Yes.

6 Q Now I'm going to read a list of other exchanges not
7 included, and if I make a mistake and you included one of
8 these, let me know at the end of the list; okay?

9 MS. WOOD: Your Honor, I have some confidentiality
10 concerns about that approach. I mean, if we're concerned
11 about preserving the confidentiality of the seven firms that
12 are included and we name all the ones that are not included,
13 there is a process of elimination there.

14 MS. DUNN: I don't think it's sensitive who he
15 included; I think it's sensitive who he included and their
16 data.

17 MS. WOOD: I just don't feel comfortable making
18 that decision on behalf of those third parties, Your Honor.

19 THE COURT: We have mentioned so many of them, I
20 think without connecting the name of the entity with the
21 data, it's not a problem. So I'm going to go ahead and let
22 that go forward.

23 MS. DUNN: Okay.

24 BY MS. DUNN:

25 Q Sir, I'm going to just list ones that I think you

1 didn't include, and you let me know if I'm making a mistake
2 at the end of the list. Okay.

3 TripleLift, Kargo, GumGum, MediaNet, Sonobi,
4 BidSwitch, Taboola, SpotX, EMX and FreeWheel. Did you
5 include any of those?

6 A No. None of them provided data that I could use.

7 Q Okay. And so you have no idea how the inclusion of any
8 transactions on any of those exchanges, including Yahoo and
9 Amazon and FreeWheel and Kargo and all the others, would
10 have affected your comparables analysis; correct?

11 A Not entirely. I know that the exchanges in my data
12 account for 80 percent of the impressions in the relevant
13 market. Because of the weights, these collectively can
14 account for more than 20 percent, and so their effect would
15 be unlikely to be large.

16 Q Okay. So your testimony is you could be off, but only
17 by 20 percent?

18 A No.

19 Q Okay. All right. So once you had selected these seven
20 exchanges, in order to determine if they were good
21 comparators, you looked only at price and no other factor;
22 correct?

23 A No.

24 Q Okay. Did you evaluate any of the quality factors we
25 talked about earlier, like detecting and filtering spam and

1 malware and fraud? Did you look at any of that?

2 A I did consider them, yes.

3 Q Okay. But they're not reflected in your weighted
4 average; right?

5 A I explained on direct that the -- well, what I'll say
6 is no. It's not in the weighted average. I control for
7 those things in the event study approach.

8 Q Okay. But we're talking right now about the
9 comparables approach, and these factors that we went over
10 earlier about how ad exchanges differ from one another,
11 those were not part of the weighted average in the
12 comparables approach; correct?

13 A I'm not even sure I understand, but I think the answer
14 is no.

15 Q No. Okay. All right. So let's look at what you did
16 do.

17 So for the seven exchanges that made up your
18 weighted average, you had data for ad formats that went
19 beyond open-web display; right?

20 A Different exchanges provided the data in different
21 ways. Some of them -- I think the answer -- yes. The
22 answer to that is yes for some.

23 Q Right. So for some of those exchanges you got, you had
24 data in your possession with respect to, for example, in-app
25 ads and connected TV ads and native ads and other ads;

1 right?

2 A Yes.

3 Q Okay. And you didn't use any of that; right? For
4 your -- the comparable study only reflects open-web display
5 advertising and none of those other ad formats; correct?

6 A Well, when there was ambiguity, we tried to be
7 conservative while doing the best we could to limit the
8 impressions to open-web display.

9 Q Right. And that was through a process called data
10 clearing.

11 And you -- other than when there was ambiguity
12 being conservative, if you could identify something as an
13 in-app ad, you wouldn't include that as a comparator;
14 correct?

15 A It wasn't included in the data that I used to calculate
16 the weighted averages.

17 Q Right. And just to put a fine point on this, even
18 though the same publisher can reach the same advertiser with
19 the same ad using the same ad exchange, in an app that's not
20 a website, you did not use app transactions as close
21 comparators; right?

22 MS. WOOD: Objection. Asked and answered.

23 THE COURT: No. I want to make sure we're clear
24 on that.

25 Overruled.

1 THE WITNESS: Yes. The data that I use excludes
2 in-app.

3 BY MS. DUNN:

4 Q Right. Okay.

5 And would you be surprised, sir, to learn that
6 Google's take rate for in-app ads is the same as for
7 open-web display ads?

8 A No.

9 Q But you did not study that fact; correct?

10 A In the sense that I excluded those data, I guess I
11 agree.

12 Q Right. But you just said you wouldn't be surprised to
13 learn that Google's real-word take rate for in-app ads is
14 the same as its real-world take rate for open-web display
15 ads, but you didn't study that when you were trying to
16 figure out what should Google's take rate be in a but-for
17 world; right?

18 A I'm not sure what the import -- what you're getting at.

19 The reality is, I limited my -- the transactions
20 that I analyzed to the transactions in the relevant market,
21 and I calculated a weighted average in that way.

22 Q So I think this is an important point, so I'm going
23 to -- with the Court's indulgence --

24 THE COURT: There's the preference again. You
25 preferred.

1 MS. DUNN: I'm sorry. I apologize. Yes, Your
2 Honor.

3 BY MS. DUNN:

4 Q Professor Simcoe, you're trying to figure out what
5 Google's take rate should be in a world without allegedly
6 exclusionary conduct; correct?

7 A Correct.

8 Q And the alleged exclusionary conduct has only -- in
9 this case has only to do with open-web display advertising;
10 correct?

11 A The markets that -- yes. The relevant markets relate
12 to open-web display advertising.

13 Q Right. But over here in the real world where
14 there's -- with respect to in-app ads where there's not
15 alleged exclusionary conduct, there is data that you just
16 said you wouldn't be surprised would yield the same as-is
17 take rate as in the world with the alleged exclusionary
18 conduct; right?

19 A So the first thing is, we're still -- my analysis was
20 in the real world. That was part of the preface that -- so,
21 just to be clear, I'm using real-world data from real-world
22 markets. My testimony was that I wouldn't be surprised and
23 that I hadn't analyzed. I'm not completely clear what take
24 rate you're referring to. I haven't tried to measure it.

25 Q Right. Just to be clear, if in the real world the take

1 rate is the same for open-web display advertising where
2 there's allegations of exclusionary conduct and in-app ads
3 where there are no such allegations, isn't it fair to say
4 that if those take rates were the same, it should tell us
5 something about what the take rates should be in the world
6 of open-web display advertising?

7 A I don't necessarily accept that. I haven't studied the
8 other market to know what it would tell us. I would say I
9 did analysis of the relevant markets and reached conclusions
10 consistent with exercise of market power.

11 Q Right. And no one asked you to study bid in-app ads?

12 THE COURT: That's been repeated.

13 MS. DUNN: I apologize, Your Honor.

14 BY MS. DUNN:

15 Q All right. If you could turn your attention --

16 MS. DUNN: And again, same thing, Mr. Spalding.

17 Just please show the Court, the witness and the Plaintiffs'
18 DTX 2066, which is Figure 10 from Professor Chevalier's
19 report.

20 BY MS. DUNN:

21 Q Sir, you reviewed Professor Chevalier's report; is that
22 correct?

23 A Yes.

24 Q Okay. And this is a table from her report, it's her
25 Figure 10, and it shows the worldwide average revenue shares

1 of the exchanges that you identified as part of your
2 comparables approach; do you see that?

3 A Yes.

4 Q All right. And the way that Professor Chevalier got
5 these numbers is she calculated the individual average take
6 rate for each of the exchanges in your comparables approach,
7 and she used your same time period, same data and same
8 transactions; correct?

9 A I believe that's correct.

10 Q Okay. And she gets these numbers by calculating the
11 average take rate for each exchange from your data set. I
12 think we just agreed on that.

13 And you saw these numbers, and you did not agree
14 with her math; correct?

15 A I don't know what you're referring to. There were
16 various parts of Professor Chevalier's math in her report
17 that I disagreed with.

18 Q That's stipulated. You did not agree with various
19 things in Professor Chevalier's report.

20 All I'm asking you is whether you disagreed with
21 the math she did.

22 A What math?

23 Q The math that she did to come up with the numbers in
24 this chart.

25 So she calculates the average take rate for each

1 exchange, which you did not do, using the same data set that
2 you had. So I just want to make sure that we're not going
3 to quibble over math.

4 A I'm not sure what you're -- could you refer me to the
5 section of Professor Chevalier's report for my rebuttal so I
6 understand what calculations or what disagreement I had?

7 Q Okay. I'm happy to do that, but I also can move on
8 from this point.

9 THE COURT: All right. Now, this is not in
10 evidence. Are you moving it in?

11 MS. DUNN: Yes, Your Honor. Can we move in
12 DTX 2534 and 2534A.

13 MS. WOOD: Again, subject to Ms. Chevalier
14 testifying, I think again.

15 THE COURT: Is she going to be a witness,
16 Ms. Dunn?

17 MS. DUNN: Oh, I apologize, Your Honor. It is
18 already DTX 2066.

19 THE COURT: It's already in? All right.

20 MS. DUNN: It may be already numbered, so I
21 apologize for that.

22 MS. WOOD: It's not already in, Your Honor.

23 MS. DUNN: It's numbered, however.

24 THE COURT: I'm sorry?

25 MS. DUNN: It's not in. It is numbered for

1 identification.

2 THE COURT: As 2066?

3 MS. DUNN: Correct.

4 THE COURT: All right. So 2066 and 2066A are in.

5 MS. DUNN: Yes.

6 THE COURT: But is she testifying?

7 MS. DUNN: Yes, she is.

8 THE COURT: All right. That solves the problem.

9 MS. DUNN: All right.

10 (Defense Exhibit Numbers 2066 and 2066A admitted into
11 evidence.)

12 BY MS. DUNN:

13 Q Sir, it is your opinion that none of those --

14 MS. DUNN: I'm sorry. Can we put that back up for
15 the witness --

16 BY MS. DUNN:

17 Q That none of these six exchanges, which are the non-AdX
18 exchanges --

19 THE COURT: I think it's seven. Seven exchanges.
20 You said six.

21 MS. DUNN: Yes.

22 BY MS. DUNN:

23 Q You're not opining that any of those seven exchanges
24 are charging super competitive prices; right?

25 A No, I'm not alleging that. I did discuss the idea of

1 strategic complementarity, which is that Google's super
2 competitive take rate creates incentives for other exchanges
3 in the same market to increase their take rates.

4 Q That was not exactly my question.

5 I'm just wanting to be clear for the record that
6 for the six of seven exchanges that you see here that have
7 take rates above 16.2 percent, you are not opining that any
8 of those six are charging super competitive prices; right?

9 A No, I'm not.

10 Q All right. And let us then move to the data that you
11 used.

12 So you excluded from your comparables analysis any
13 transaction data from exchanges that produced only U.S.
14 data; correct?

15 A Yes. For worldwide analyses.

16 Q Right. You did worldwide analyses and not U.S.
17 analyses; right?

18 A Well, I did U.S. analyses and reported those as
19 robustness, but when I do worldwide analyses, I leave out
20 exchanges that didn't produce worldwide data.

21 Q Right. So your -- but your -- so your opinions that
22 you're offering that form the basis of the 16.2 but-for take
23 rate, that was based on worldwide, but the robustness check
24 you did was based on United States' data? I have that
25 right?

1 A Yes. I also reported results for both the comparables
2 and the event studies based on U.S. data.

3 Q Right. Okay. So let's take a look at the robustness
4 check results for the comparable study that are reflected in
5 figure 25 of your report.

6 MS. DUNN: And we've marked this as Simcoe
7 Demonstrative 2.

8 BY MS. DUNN:

9 Q And I think you said yesterday, sir, that a robustness
10 check is meant to check dramatic changes?

11 MS. WOOD: Sorry. Is this in the rebuttal report?

12 MS. DUNN: I think it is in the regular report.
13 It's page 120 of the opening report.

14 MS. WOOD: Okay. That was the report that had
15 110 pages.

16 MS. DUNN: It is also apparently marked as
17 PTX 1213. Okay.

18 BY MS. DUNN:

19 Q Are you there?

20 A I'm familiar with this. You can go ahead. I can find
21 it.

22 Q Okay. Now, I think you said yesterday that a
23 robustness test is meant to check against for dramatic
24 changes; right?

25 A I may have said something like that.

1 Q Okay. And I think you'll see if you look at your
2 Figure 25, that just looking at United States' data, you
3 get -- for AdX, all third parties, you get a 17.8 percent
4 but-for average take rate; do you see that?

5 A Yes, I see it.

6 Q All right. And you would agree with me that the as-is
7 take rate that you -- that you put forward, the 19.8, is
8 only two percentage points above the 17.8 percent but-for
9 take rate that you find in the U.S. data?

10 A The difference between those is two percentage points.
11 That's correct.

12 Q Right. And earlier when we talked about the exchanges
13 you excluded from your weighted averages and you said
14 20 percent was not that big of a deal, wouldn't have such a
15 great effect, I just want to note, we agree this is
16 2 percent. And I know this really may be apples and
17 oranges, but we can agree, 2 percent is a much smaller
18 number than 20 percent; right?

19 A This is apples and oranges. And 2 is less than 20.

20 Q Right. Okay.

21 So the -- also, you can agree with me that if you
22 compare the worldwide number to the U.S. number, it's a
23 3.6 percent delta. And what that means is that your
24 worldwide number is 80 percent higher than the 2 percent
25 delta you found in the United States; correct?

1 A I'm not sure. I'd love -- I think you did this math on
2 the back of the envelope, so I'm not really able to check it
3 unless you want to walk through it with me. I'm not sure
4 what the 80 percent -- what it means or -- it seems like
5 you're just asking me to say yes to some calculations that
6 you did.

7 THE COURT: Let's keep it simple.

8 MS. DUNN: Yeah.

9 THE COURT: The worldwide number is higher? Yeah,
10 it's --

11 MS. DUNN: Yeah. It's not just -- I think the
12 point, Your Honor, it's not just higher, but it's higher by
13 a factor of 80 percent. So if you take 2 percent --

14 THE COURT: Well, you can't testify.

15 MS. DUNN: Well, that's why I'm -- he's a Ph.D.
16 economist, I think, right? I mean ...

17 THE COURT: It doesn't mean he can do math.

18 BY MS. DUNN:

19 Q We can agree, if the delta is 2 percent that you're
20 talking about and then the delta in the worldwide data is
21 3.6, that that is a pretty dramatic difference; no?

22 MS. WOOD: Objection to the term "dramatic."

23 MS. DUNN: It's his term.

24 THE COURT: It's just a difference.

25 BY MS. DUNN:

1 Q This was a robustness check, sir, and you found -- this
2 is a difference, it's a significant difference, we can agree
3 on that?

4 A It's a difference, yes.

5 Q Yes. And you -- and there's nothing in your report
6 that explains the -- explains a way -- the difference that
7 you found in your robustness check as between the worldwide
8 data and the U.S. data; correct?

9 A Actually, what's in my report is an explanation of why
10 I rely on the worldwide analysis and also a robustness check
11 for U.S. data using the event study approach. And with the
12 event study approach, it goes into --

13 Q I'm just talking right now about the comparables
14 approach, which is -- this was a robustness check on the
15 comparables approach. We're going to talk about the event
16 study in a second.

17 But you can agree, you've checked for robustness,
18 you've found what we've agreed is a real difference, and you
19 still put it forward as a robustness check to this Court;
20 correct?

21 A Yes.

22 Q Okay. You mentioned earlier scale, and so let's take a
23 moment on scale.

24 Before this trial, the parties filed with the
25 Court findings of fact, and in plaintiffs' finding of fact,

1 paragraph 57, this is what they said about scale. They say:
2 "In every layer of the ad tech stack, scale is critical to
3 an ad tech company's ability to compete. Scale, therefore,
4 represents a significant barrier to entry and expansion, as
5 well as a key ingredient in the ability of an ad tech
6 company to improve its products and better serve its
7 customers."

8 And so we can agree that scale can be
9 pro-competitive; correct?

10 MS. WOOD: Objection. Beyond the scope.

11 THE WITNESS: In the abstract --

12 THE COURT: More than that, it really calls --
13 that's a legal conclusion. So I'm going to sustain the
14 objection.

15 BY MS. DUNN:

16 Q Okay. Speaking about your analysis with respect to the
17 but-for world where you said that there would be an absence
18 of anticompetitive conduct, you're taking no position on
19 what proportion of Google's scale is due to the alleged
20 anticompetitive conduct; right?

21 A Yes. I was not asked to measure the effect of
22 individual pieces of conduct as to scale.

23 Q Right. And I believe it was discussed at your
24 deposition that your comparables approach does nothing to
25 disaggregate any pro-competitive benefits of scale; correct?

1 A I guess yes.

2 Q Yes. And you were asked in your deposition whether
3 it's possible for Google's scale to have come about through
4 pro-competitive conduct, and you said that that was
5 possible; right?

6 A I probably said it was possible but that I didn't see
7 evidence to that effect, or it wasn't something I was asked
8 to analyze.

9 Q For the record, you said: "I think that's some -- I
10 guess some -- you said yes. I think that's some -- yeah, I
11 guess some aspects of scale." But then you said: "What
12 we're referring to here, what matters is differences in the
13 relative size of exchanges"; do you remember that?

14 A Not specifically.

15 Q Okay. All right. Let's talk about your event study.

16 So your event study is designed around Google's
17 introduction of the Unified Pricing Rules to obtain a second
18 estimate of your AdX but-for take rate; right?

19 A Broadly, yes.

20 Q And which study did you do first, the comparables study
21 or the event study?

22 A I did them simultaneously.

23 Q You ran both simultaneously?

24 A I worked on both at the same time.

25 Q Okay. Which results did you get first, the comparable

1 study, which you mentioned first in your report, or the
2 event study?

3 A I think I knew the weighted averages for the
4 comparables before I had the final results of the event
5 study, but I don't recall exactly.

6 Q Okay. Your event study had a time window of
7 October 2018 through September 2021, and so that includes,
8 just for clarity, one year of data prior to Google's full
9 launch of UPR, and 24 months of data after the full launch
10 of UPR; right?

11 A Yes.

12 Q Okay. And the increase in AdX impressions that you
13 observe, you said, I believe on direct, coincided with
14 Google's introduction of several other changes to its
15 platform in September 2019; right?

16 A Yes.

17 Q And you agreed when the Court said yesterday that when
18 you do an event study, you need to make sure that you're not
19 including extraneous information. You agree with that;
20 right?

21 A Yes, I agree. I would say it differently, but I agree.

22 Q So the changes that happened contemporaneously in
23 September 2019 are the adoption of UPR, the removal of last
24 look, and the transition to first-price auction; right?

25 A Correct.

1 Q Okay. There might have been some other product
2 changes, but those are the ones we're focused on; correct?

3 A Those are the three that happened at that time. Those
4 were the significant ones.

5 Q Okay. All right. Now let's start first with the
6 removal of last look.

7 So yesterday you testified that holding all else
8 equal, you would expect to see fewer impressions on AdX
9 compared to the other exchanges when Google deprecated last
10 look; do you recall that?

11 A Yes.

12 Q And you're saying that's what you expected to see, but
13 you didn't test that hypothesis; correct?

14 A In the data, what I can measure is the joint effect of
15 these three simultaneous changes to Google's product.

16 That's what I testified.

17 Q I'm sorry. I could not hear what you said.

18 A I said I measured the combined effect, because that's
19 what's feasible in the context of an event study.

20 Q Right. When you say "combined effect," everything
21 together; right?

22 A Correct.

23 Q Okay. And you didn't perform any independent analysis
24 of how much, if at all, the removal of last look led to a
25 lower win rate for AdX; right?

1 A I did not measure that. I looked at Google documents
2 that explained that they expected a removal of last look to
3 lead to a decrease in the number of impressions won.

4 Q Right. And I want to go through those documents.

5 So if you can turn, sir, to your report,
6 paragraph 157.

7 MS. DUNN: And we should put that on the screen.
8 Thank you.

9 BY MS. DUNN:

10 Q In paragraph 157 you state: "The removal of last look
11 led to a lower win rate for AdX." And you cite a single
12 Google document for that assertion, and that's at
13 Footnote 211; do you see that?

14 A Yes.

15 Q And so we would like to show you PTX 1035. This is the
16 document that you cite in Footnote 211 for this proposition
17 about last look. And if you direct your attention to
18 page 359, which we can put on the screen for you, you will
19 see that Google estimated -- and if you can't find it, 1035
20 is in the folder that we handed up.

21 So Google estimated that last look would result in
22 a 9.41 percent decrease in impressions. You see that over
23 there on the right?

24 A On the top left box you mean?

25 Q It's big on -- in the top right under aggregate minus

1 9.6 percent revenue; do you see that?

2 A Yes. Though I've been talking about impressions in my
3 testimony.

4 Q Yes, that's correct, you are talking about impressions
5 and not revenue. All right.

6 So it's minus 9.41 under impressions; do you see
7 that?

8 A Yes.

9 Q Okay. And if you look at the title of the slide, it
10 says "Removing Last Look"; do you see that?

11 A Yes.

12 Q And you see the asterisks next to that?

13 A Yes.

14 Q And if you look at the bottom of the page, the
15 asterisks says that this impact is measured in a
16 second-price auction; do you see that?

17 A Yes, I do.

18 Q Okay. So what you looked at was from a second-price
19 auction, not from a first-price auction; correct?

20 A Correct.

21 Q Okay. And you've already testified -- and I don't
22 think it's in dispute -- that Google transitioned to a
23 first-price auction when it introduced UPR; correct?

24 A Yes.

25 Q Okay. Now, if you turn to your -- okay. Let's talk --

1 MS. DUNN: I think we can take that down.

2 BY MS. DUNN:

3 Q All right. Turning to the second contemporaneous
4 change, the first-price auction which you just said happened
5 at the same time, you're aware that no expert in this case
6 has opined that the Unified First Price Auction was
7 anticompetitive. You know that; right?

8 A The Unified First Price Auction meaning all three
9 pieces of change? Or, you know, which ...

10 Q No. Just the Unified First Price Auction.

11 A You mean just the change from second-price to
12 first-price format?

13 Q Correct.

14 A Yes.

15 Q Right. Okay. Now, you testified yesterday that
16 "holding all else equal, you would expect to see no change
17 in the number of impressions won by different exchanges
18 after the transition to a Unified First Price Auction"; do
19 you recall that?

20 A Yes.

21 Q And what you said was that "willingness to pay doesn't
22 depend on whether the auction is conducted using a
23 second-price or first-price format"; right?

24 A Correct.

25 Q And you know that in a second-price auction, the winner

1 is the one with the second highest willingness to pay;
2 right?

3 A In a second-price auction, the winner is the one with
4 the second price, second highest willingness to pay?

5 Q Yeah. First-price auction, the winner is the person
6 who bids the highest. In a second-price auction, the winner
7 is the person with the second-price bid.

8 A You're confusing bids with willingness to pay. In both
9 formats, the bidder with the highest willingness to pay
10 makes the highest bid and wins the item.

11 Q Okay. That's a hypothesis that you had, but you did
12 not test that for this report; correct?

13 A That's a standard feature of every auction model I've
14 ever seen.

15 Q Okay. Well, I just want to understand.

16 Did you perform any independent analysis of how
17 much, if at all, the transition to a Unified First Price
18 Auction resulted in no change to AdX impressions, as you say
19 you would have expected to see?

20 A I did not test it in the data given that all three
21 events occurred simultaneously.

22 Q Okay. And -- right.

23 So when you're talking about -- I think if we turn
24 to -- I think -- sorry. Strike that.

25 Your hypothesis, which you didn't test this theory

1 about -- that led you to believe there would be no change in
2 AdX impressions with the transition to the Unified First
3 Price Auction, the footnote in your report cites the revenue
4 equivalence theorem; is that correct?

5 A I'll take your word for it. Do you want me to look at
6 the footnote?

7 MS. DUNN: Why don't we then put on paragraph 157
8 again.

9 BY MS. DUNN:

10 Q And if you look at Footnote 211.

11 MS. DUNN: No.

12 THE WITNESS: It looks like 212.

13 MS. DUNN: Right. I apologize, Your Honor. 212.
14 Okay.

15 BY MS. DUNN:

16 Q So what you cite here for the theory that you just
17 espoused is something called the revenue equivalence
18 theorem; do you see that?

19 A Yes.

20 Q Now, first of all, in Footnote 212 it says "holding all
21 else equal"; do you see that?

22 A Yes.

23 Q But we've already agreed that there were numerous other
24 factors happening at the same time. So all else is not
25 equal with respect to the Unified First Price Auction;

1 correct?

2 A With the Unified First Price Auction, three things
3 changed at the same time, that's correct.

4 Q Right.

5 A This is the -- the question that I'm addressing here is
6 what you would expect if you don't change three things at
7 the same time but only change the auction format from second
8 price to first price.

9 Q Right. And the revenue equivalence theorem has to do
10 with revenue; correct?

11 A Yes.

12 Q Right. And you just said a moment ago you only looked
13 at impressions; correct?

14 A Yes.

15 Q Okay. All right. So then let's look at --

16 MS. DUNN: Please keep up paragraph 157.

17 BY MS. DUNN:

18 Q So we just looked at your citation for the first
19 sentence which is Footnote 211 which was the PowerPoint that
20 we looked at where the last look experiment was done within
21 the context of the first-price auction. We just looked at
22 your cite 212, which was about the revenue equivalence
23 theorem, and we've just discussed that.

24 The only other citation you have for these
25 propositions is a September 2019 email from Google's Nitish

1 Korula; do you see that?

2 MS. WOOD: Objection, again, to the preambles and
3 what we've covered and what we haven't covered.

4 THE COURT: Yeah. I think we can leave the
5 preambles out of the question.

6 MS. DUNN: I just thought I had confused everyone,
7 so I apologize.

8 BY MS. DUNN:

9 Q All right. So if you look at your report, you see
10 where you refer to a September 2019 email from Google's
11 Nitish Korula?

12 A Yes.

13 Q And you are citing that -- for this proposition that
14 the switch to first-price auction had little impact on
15 market outcomes; do you see that?

16 A Yes.

17 MS. DUNN: If we could show Professor Simcoe
18 PTX 695 which is -- matches the Bates stamp of the email
19 that you cite.

20 THE COURT: Are you moving that in, or is it
21 already?

22 MS. DUNN: I believe it's in evidence, Your Honor.

23 And I just would like Professor Simcoe to identify
24 the date on the email.

25 MS. WOOD: Your Honor, I don't show it in my chart

1 of admitted exhibits. PTX 695?

2 MS. DUNN: I'm happy to use it just for
3 demonstrative purposes. It doesn't need to be admitted.

4 MS. WOOD: We can admit it, Your Honor.

5 THE COURT: All right. We'll admit it. It's in.
6 That's Plaintiffs' 695.

7 (Plaintiffs' Exhibit Number **695 admitted into evidence.**)

8 BY MS. DUNN:

9 Q Okay. And this email that you cite is a September 2019
10 email from Nitish Korula.

11 Do you see that the email is actually from
12 September of 2018?

13 A Well, before they zoomed in, it looked like there was a
14 2019 date at the top.

15 Q Right. But the email that you -- the part of the email
16 that you are citing and that you rely upon is from
17 September 6th of 2018; do you see that?

18 A I see that.

19 Q Right. And the -- that's the sentence you cite.

20 And you would agree that September of 2018 is from
21 an entire year before Google implemented the Unified First
22 Price Auction; correct?

23 A Yes.

24 Q And I think also if you look at this email, you will
25 not see anywhere a discussion of the percentage of

1 impressions that Google anticipated gaining or losing as a
2 result of the Unified First Price Auction; do you disagree
3 with that?

4 A I'm sorry. Would you repeat the question?

5 Q If you look at this email, you will not see anywhere a
6 discussion of the percentage of impressions that Google
7 anticipated gaining or losing as a result of the Unified
8 First Price Auction?

9 A Well, they talk about winning more impressions.

10 Q Okay. All right. Let's look at --

11 MS. DUNN: If we could put back up Plaintiffs'
12 Exhibit 1035, which is the PowerPoint that we just looked
13 at. And this document is from September 2019.

14 BY MS. DUNN:

15 Q And this was the PowerPoint, sir, where we looked at
16 the slide about last look. I'd like to direct your
17 attention to a different slide in the same PowerPoint. It
18 is at page 358.

19 Now, do you see where it says there: "Google
20 anticipated that the move to the first-price auction would
21 'improve competitiveness against external 1P demand"'; do
22 you see that?

23 A Yes.

24 Q Right. And that's not a slide that you cite in your
25 report; correct?

1 A I don't think so.

2 Q And you don't say in your report that you consider that
3 the impact of AdX's approved competitiveness against
4 external 1P demand in preparing your event study; right?

5 A Could you repeat that one? I don't say what?

6 Q You don't say in your report that you considered what's
7 on this slide; correct?

8 A I guess I don't say explicitly that I considered this
9 slide, no.

10 Q Right. And if you look at the slide on page 361, this
11 slide comes after the one you relied on about last look, it
12 showed that Google's experiments showed that a shift to the
13 first-price auction would lead to an increase of
14 21.7 percent in revenue and 43 percent increase in
15 impressions for AdX buyers; do you see that?

16 A I see this.

17 Q Okay. And you can agree with me, I think, that
18 43 percent increase in impressions is a lot more than the
19 minus 9.41 percent loss of impressions from the last look
20 second-price auction slide that you relied on; correct?

21 A I don't necessarily think these are, you know, the
22 same. They're measuring the same things, but I can agree
23 that 43 percent is bigger than 9.

24 Q Right. And you did no analysis to reconcile this
25 before you opined that there would be little impact on

1 market outcomes; right?

2 A I did my own event study analysis.

3 Q Right. But you didn't reconcile in the -- in one out
4 of two documents that you looked at for this proposition,
5 you did not reconcile what Google's experiments actually
6 said was going to happen with respect to the Unified First
7 Price Auction; right?

8 A I don't understand what reconciliation you're asking me
9 about.

10 Q Well, it means you look at the percentages on the one
11 slide you looked at, you look at the percentages on the
12 slide that came after that, and you try to make it make
13 sense.

14 A I think that the two slides are referring to different
15 combinations of the three practices, and so they're not
16 directly comparable.

17 Q Right. And instead of using this slide about the
18 Unified First Price Auction from a deck from 2019, you
19 looked in an email -- one sentence in an email from 2018;
20 correct?

21 A I think that the -- I tried to find evidence that spoke
22 to what Google understood would happen when you thought
23 about these three things one at a time holding all else
24 equal. And I also cited to relevant economics that speaks
25 to those same questions, and then I did the event study.

1 But you're right that I didn't cite the slide.

2 Q When you say "tried to find evidence," what do you mean
3 by that?

4 A I reviewed the documents and I did my own analysis.

5 Q Okay. And just to be totally clear, at no point did
6 you reconcile what the Google experiment showed with what
7 your revenue equivalence theory --

8 THE COURT: That's been asked and answered.

9 MS. DUNN: Okay. That's fair, Your Honor. All
10 right.

11 BY MS. DUNN:

12 Q But one last question on this, which is, you didn't
13 include a variable in your event study to control for any
14 increase in impressions due to the Unified First Price
15 Auction; right?

16 A No, I disagree with that.

17 Q There's -- your testimony is there's a variable in your
18 event study that controls for any increase in impressions
19 due to the Unified First Price Auction?

20 A Impressions is the outcome variable in the regression,
21 so you can't -- sort of all variables in some sense control
22 for the outcome. I have -- we discussed all the explanatory
23 variables in my regression.

24 Q Okay. And do you remember at your deposition you were
25 asked: "Did you do any empirical analysis to determine

1 whether UFPA makes the event study results conservative?"

2 And you said: "I was not able to, but I looked at
3 experiments conducted by Google that provided results that
4 are consistent with that view"; do you recall that?

5 A Not specifically, but that must be what I said in my
6 deposition.

7 Q Okay. And just to be clear, you didn't do any analysis
8 to isolate the effect that the Unified First Price Auction
9 had on the increase in AdX impressions; right?

10 A Again, the Unified First Price Auction is these three
11 things together, and so when you use the term "isolate,"
12 what are you asking?

13 Q Well, this could be -- so when -- you just said the
14 Unified First Price Auction is these three things together.

15 A Last look, the transition in auction format, and the
16 adoption of Unified Pricing Rules.

17 Q Okay. So when you said yesterday that there were three
18 things that happened all at the same time and one of them
19 was the Unified First Price Auction, what you really meant
20 was that Unified First Price Auction is all three of them
21 together?

22 A The term Unified First Price Auction gets used to
23 describe the three being adopted simultaneously. It gets
24 confused sometimes with Unified Pricing Rules because both
25 have the term "unified" in them. I think it's just good to

1 be explicit and clear about which one we're talking about at
2 any point in time.

3 Q Okay. But yesterday you said there were three separate
4 things, and one of them was the Unified First Price Auction.
5 And so I want to make sure if your testimony yesterday
6 treated the Unified First Price Auction as one of the three
7 things or all the three things together?

8 A If I referred to -- I may have made a mistake in my
9 testimony referring to Unified Pricing Rules as Unified
10 First Price Auction. I don't know. We would have to go
11 back and see. But what I mean by Unified First Price
12 Auction or the way it's typically used is to refer to a set
13 of three changes.

14 Q Okay. But when plaintiffs' counsel was questioning you
15 about the three separate things that happened at the same
16 time and one of them was the Unified First Price Auction,
17 with that basis, you did not isolate only the effects of the
18 transition to the unified first-price auction separate of
19 deprecating last look and UPR; correct?

20 MS. WOOD: Objection. I think this has been asked
21 and answered, and I don't believe that I ever referred to it
22 as a Unified First Price Auction. I consistently referred
23 to it as a shift to a first-price auction, which alleviates
24 the problem.

25 THE COURT: I think that's correct. I'll sustain

1 the objection.

2 MS. DUNN: Okay.

3 THE COURT: Your hands are not asking anything.

4 MS. DUNN: I understand. Because I have the same
5 question, and I'm wondering if it's going to try the Court's
6 patience, but it is very important to know whether he
7 disaggregated the shift to the Unified First Price Auction
8 from the other things.

9 MS. WOOD: Your Honor, we have covered this
10 multiple times, including in his direct. He's already
11 stated multiple times that there's no way to disaggregate
12 the three from each other because they all happened
13 simultaneously.

14 THE COURT: Yeah. That point's clear.

15 MS. DUNN: That takes care of that. All right.

16 BY MS. DUNN:

17 Q All right. Let's talk about the third change, UPR.

18 Now, your study does not account for the beta
19 stage of UPR that happened before the full September 2019
20 rollout; correct?

21 A I think -- so I have a short-run effect for the quarter
22 of implementation and a long-run effect, so nothing from
23 pre, so I guess that's correct.

24 Q Okay. And so you don't know how many customers
25 participated in the beta stage or how large they were or how

1 much traffic they engaged in; right?

2 A No.

3 Q Okay. And you did no analysis of whether -- you did no
4 analysis of how UPR effected output for in-app, native or
5 CTV ads which are transacted on AdX; right?

6 A That's correct. I did not study that.

7 Q Okay. And so you can't disaggregate that effect;
8 correct?

9 A It's not in the data that I used.

10 Q Okay. And you did not review the deposition of the
11 BuzzFeed witness; correct?

12 A Not that I can recall.

13 Q You didn't review the deposition of The New York Times
14 witness; correct?

15 A I might have, but I don't recall it -- reading it.

16 Q Okay. And you didn't review documents reflecting
17 positive feedback from publishers about UPR; correct?

18 A I think some of those may have been provided in
19 Professor Chevalier's report, and I reviewed them in that
20 context.

21 Q Okay. So in forming the opinions for your opening
22 report, you did not review the positive feedback from
23 publishers about UPR?

24 A I don't recall doing so.

25 Q Okay. And you do not dispute that -- the fact that

1 allowing -- strike that.

2 You do not dispute that following UPR, there was a
3 net output expansion for the number of transactions for
4 open-web display impressions; right?

5 A I wouldn't attribute that to UPR, but there was a --
6 the market has been growing, yes.

7 Q Right. I'm not -- and I'm just asking you, sir,
8 whether, following UPR, there was a net output expansion,
9 and you agree with that; right?

10 A Yes.

11 Q And as you just said, the number of open-web display
12 impressions was growing before, during and after your event
13 study window; correct?

14 A Correct.

15 Q Now, let's talk briefly about a hypothetical that you
16 discussed at your deposition.

17 You assumed -- if we assume output increases by
18 100 impressions, and all 100 impressions go to Google's AdX,
19 your model would show that AdX's impressions increased over
20 rivals by 100; correct?

21 A Broadly, yes.

22 Q Right. Now, let's assume that if output remains equal
23 and Google takes 50 percent of impressions from rivals, your
24 model would also show that AdX's impressions increased over
25 rivals by 100; correct?

1 A Broadly.

2 Q Right. So broadly, your event study does not
3 differentiate between impressions that Google won at the
4 expense of its rivals versus impressions gained as a result
5 of output expansion; right?

6 A That's not really quite correct. The model looks at
7 how Google's share of impressions or win rate changes before
8 and after the adoption of the three policies we were just
9 discussing relative to rivals, and there is an outside
10 option which means that there can be growth in the market.
11 The model accommodates that.

12 Q Right.

13 But I just want to be clear about this, because
14 we've just agreed that if AdX increases impressions over
15 rivals by 100 and that's due to output expansion, that --
16 the model views it the same as if Google takes -- sorry.
17 Strike that. I'm just going to ask you what you said at
18 your deposition.

19 So in both of those hypotheticals, wherein one
20 output stays the same and in another, output increases, your
21 model would show the same net increase for Google over its
22 rivals; that's correct?

23 A I think that's correct. The UPR -- the coefficient on
24 the event study would be the same, and then the output would
25 be captured in the time effects we discussed on direct.

1 Q Right. All right. Now let's talk about fixed effects.

2 If the fixed effects can control for differences
3 across exchanges that are constant throughout the event
4 window, but it can't control for time-varying differences in
5 the characteristics of the exchanges; correct?

6 A Yes.

7 Q And so, for example, in the Court's example of COVID,
8 if COVID did not affect all exchanges in the same way, the
9 model would not account for that; correct?

10 A Yes. If COVID was a Google-specific shock, that would
11 not be accounted for.

12 Q Right.

13 A But I have the other exchanges, which I believe were
14 also affected by COVID in the model.

15 Q Right. But, like, for example -- for example, if one
16 of the exchanges that you considered had a lot of layoffs,
17 for example, it wouldn't -- you couldn't take that into
18 account? Anything that in particular happened to one of the
19 exchanges during the period of time; right?

20 A I'm not sure I agree with the layoffs example. We
21 would typically think of that as an outcome or something
22 endogenous to what's going on.

23 Q Okay. How about if -- when one of the exchanges on
24 your list went public on December 9th, 2020, does the
25 exchange fixed effect variable control for that?

1 A If a single firm went public at a point in time after
2 the event, that's not something that's controlled.

3 Q Okay. And if one of exchanges out of your seven merged
4 with another exchange, that's also not controlled for;
5 correct?

6 A Hypothetically I think that in the data we account for
7 that.

8 Q It would or would not?

9 A Would.

10 Q It would account for that. Okay.

11 All right. So under your model, sir, market power
12 is due to the alleged ties, but is also a fixed effect
13 because it preexisted your event window; correct?

14 A I wouldn't say that market power is a fixed effect.

15 The inclusion of exchange effects accounts for preexisting
16 differences between the exchanges. I think Google had
17 market power before and after, and the event study gives us
18 a way of measuring how it was used.

19 Q Right. So what I'm trying to understand is that the
20 purpose of the study is to measure market power as a result
21 of these alleged ties, and to do that using UPR; correct?

22 A Broadly, yes.

23 Q Right. But you'd have to admit, the model cannot
24 measure the impact of market power due to the ties because
25 they were the same before and after the study; correct?

1 A Yes. The market -- the event study use UPR; it does
2 not use removal of the ties. The ties were present before
3 or after.

4 Q Right. And so just for clarity of the record, you
5 would have to admit, the model cannot measure the impact of
6 market power due to the ties; correct?

7 A No.

8 Q No, it can't; or no, you disagree?

9 A No, I disagree.

10 Q Okay. All right. So you point out that your event
11 study controls for unobserved differences in quality between
12 exchanges, and you agree with that, that's in your report;
13 right?

14 A Yes.

15 Q Okay. And yesterday you testified that the comparables
16 approach does not control for unobserved differences in
17 quality between exchanges; correct?

18 A I would say I considered and I looked at various
19 indicators of quality, but the event study has more explicit
20 control for the hypothesized quality differences than you're
21 discussing, yes.

22 Q I thought you agreed earlier that you looked at price
23 and you didn't look into all of these other quality-related
24 features that we had discussed with respect to the
25 comparables approach; right?

1 A The reality is I considered those factors and I looked
2 at qualitative evidence, and I did a couple of types of
3 things you could think about as robustness checks related to
4 types of indicators of exchange characteristics that I could
5 observe in the comparables approach. But as I've testified
6 the fixed effects or the change effects in the event study
7 is sort of the more sophisticated way of doing that.

8 Q Okay. And my question is, you've put forward the
9 opinion that you have one study that controls specifically
10 for quality; the other that, broadly speaking, doesn't as
11 much, and whether you think that the fact that they yield
12 the same result renders both of these studies reliable?

13 A I said that they're complementary. I think that
14 they -- the results of one make me more confident in the
15 results of the other.

16 MS. DUNN: Okay. Court's indulgence. I'm just
17 trying to speed this up.

18 BY MS. DUNN:

19 Q Okay. Now, if you look at paragraph 94 of your
20 rebuttal report.

21 MS. DUNN: Actually, I apologize, Your Honor. I'm
22 just trying to cut stuff out to make this go faster.

23 THE COURT: Do you want this on the screen or not?

24 MS. DUNN: No.

25 BY MS. DUNN:

1 Q All right. You prepared an advertising demand
2 elasticity analysis using an internal Google UPR experiment;
3 do you recall that?

4 A I think so, yes.

5 Q Okay. And you said in your report that "this
6 experiment shows that UPR led to an increase in impressions,
7 one via AdX, of 6.48 percent, and an increase of
8 4.25 percent in total revenue."

9 MS. WOOD: If you're reading, do you mind telling
10 us where you're reading from?

11 MS. DUNN: Yeah. Paragraph 298.

12 MS. WOOD: Of the opening report?

13 MS. DUNN: Yes. Correct.

14 MS. WOOD: Thank you.

15 MS. DUNN: And we can put that up on the screen.

16 BY MS. DUNN:

17 Q All right. In Footnote -- do you see that?
18 Paragraph 298 where you say: "Across any buy-side traffic
19 on AdX, UPR led to an increase in impressions, one via AdX
20 of 6.48 percent, and an increase of 4.25 percent"; do you
21 see that?

22 A Yes.

23 Q Okay. And then you cite a document which has been
24 marked as Plaintiffs' Exhibit 818; do you see that?

25 A Yes.

1 Q Okay. So we would like to show you, sir, this exhibit
2 that you cite. It's an email from August 2019 between
3 Nitish Korula and Nirmal Jayaram entitled "Unified Auction
4 Sell-Side Exec Update."

5 MS. WOOD: According to my records, it's already
6 in, Your Honor.

7 THE COURT: All right.

8 BY MS. DUNN:

9 Q Okay. And, sir, can you point to where in this
10 document you see mention of a 6.48 percent increase in
11 impressions won by AdX and a 4.25 increase in total revenue?
12 Do you see it there?

13 A I see 6.4 percent revenue.

14 Q Right. But your report says 6.48 percent increase in
15 impressions.

16 A Impressions, yep.

17 Q And 4.25 percent increase in total revenue.

18 Do you see that in this document?

19 A Yes.

20 Q Where is that?

21 A I do not see those numbers on the screen.

22 Q Okay. All right. Sir, let's turn briefly to your
23 apportionment analysis that you discussed yesterday with
24 plaintiffs' counsel.

25 You said that -- you talked about the tax

1 incidence model, and in a tax incidence model, a buyer or
2 seller's share of the total depends on the elasticity for
3 the item purchased. That's in your report; that's correct,
4 right?

5 A Yes.

6 Q Okay. When you talk about the item purchased in this
7 case, what is the item being purchased?

8 A The item being purchased is the impression on AdX.

9 Q The impression. Okay.

10 A On AdX.

11 Q And that is a transaction between a buyer and seller of
12 Adspace; correct?

13 A Yes. Who use the exchange.

14 Q Right. All right. Now, you -- turning to
15 paragraph 174 of your report, this is during the discussion
16 of your apportionment.

17 You were talking about the -- do you see under
18 mathematical model of advertiser overcharge?

19 A Yes.

20 Q Okay. And you say: "My mathematical model for
21 calculating advertisers' share of the total AdX overcharge
22 starts with a set of supply-and-demand curves. When
23 deciding whether to sell a representative impression through
24 a particular exchange, publishers, in theory, should weigh
25 the quality-adjusted net revenue -- market price less take

1 rate fees -- they expect to earn through that exchange
2 versus what they could earn from filling their impression
3 through alternative channels"; do you see that?

4 A Yes.

5 Q And when you talk about alternative channels that the
6 publishers could use, you specifically mention header
7 bidding; right?

8 A Yes.

9 Q And a direct deal; correct?

10 A And another exchange.

11 Q Right. Header bidding, another exchange or a direct
12 deal. You mention all of those as alternatives that
13 publishers could use; correct?

14 A In this model of tax incidence, yes.

15 Q Right. And that's the model that you used in this
16 case; right?

17 A Yes.

18 Q Okay. And then if you look at paragraph 175, you're
19 talking about the choices here that advertisers have when
20 they're purchasing impressions. And you say: "Thus,
21 for" -- and you talk about the advertiser wants a return on
22 investment; do you see that? This is paragraph 175.

23 A Yes.

24 Q All right. And then you say: "Thus, for a given type
25 of impression, advertisers should theoretically weigh the

1 price they can expect to pay through an exchange's Open
2 Auctions versus alternative channels for acquiring the same
3 type of impression, or the value they can realize from
4 advertising through alternative channels"; do you see that?

5 A Yes.

6 Q Right. And so you would expect that an advertiser
7 would weigh choices of advertising through alternative
8 channels; right?

9 A The elasticities of supply and demand depend on other
10 options that advertisers and publishers have.

11 Q Right. So when you looked at this about the exchanges
12 between -- I shouldn't use the word exchanges. The
13 transactions between buyers and sellers of Adspace, you
14 talked about the choices that publishers and advertisers
15 have, and you talked about the alternatives that they have;
16 right?

17 A Yes.

18 Q Okay. All right. Now, if you look at -- let's talk
19 about the data you used for your apportionment analysis.

20 You testified yesterday that you were able to
21 estimate the demand and supply elasticities using data from
22 "millions of auctions from Google-produced data from the
23 summer of 2023"; do you recall saying that?

24 A Yes.

25 Q Okay. And if you look at paragraph 280 of your report.

1 It's Appendix C. And this is the part of your report where
2 you describe the data you considered to estimate the price
3 elasticities that are the basis for your apportionment
4 analysis; do you see that?

5 A Yes.

6 MS. DUNN: Okay. And if we could put
7 paragraph 280 up on the screen.

8 BY MS. DUNN:

9 Q What you're doing here is you received data from Google
10 for June 2023, one month; right?

11 A Yes.

12 Q And it's a month outside your study period; right?

13 A Yes. That was the month we could get.

14 Q Right.

15 MS. WOOD: May I have a moment to confer?

16 THE COURT: Go ahead.

17 (Pause.)

18 MS. DUNN: Thank you to plaintiffs' counsel. If
19 we could show the witness, the Court and the plaintiffs'
20 counsel.

21 BY MS. DUNN:

22 Q Okay. And your sample included all queries received in
23 five seconds of every minute in June 2023, as well as all
24 queries from one day; do you see that?

25 A Yes.

1 Q Okay. And you have a footnote there, 272, which cites
2 a letter that plaintiffs' counsel sent that's in your
3 report; do you see that?

4 A Yes.

5 Q And we have put the letter on the podium there for you
6 and the Court, and plaintiffs have it as well.

7 And it reflects that for June of 2023, in total,
8 there were 78.2 billion queries. And you can look at the
9 letter unless -- do you remember that off the top of your
10 head?

11 A No.

12 Q Okay. Look at the letter. And if you see at the
13 bottom, the last sentence on the first page of the letter,
14 it says: "This production includes approximately
15 78.2 billion queries and consists of 79 terabytes of data";
16 do you see that?

17 A Yes.

18 Q Okay. And so with that background, let's look at
19 paragraph 281 of your report.

20 MS. DUNN: But don't show it publicly; just show
21 it to the witness, please.

22 BY MS. DUNN:

23 Q So you describe the sample you got as large, which is
24 fair because it was 78.2 billion; right?

25 A Yes.

1 Q That's a lot.

2 And you conducted the analysis on a sub-sample.

3 And from the sample, you took one out of every 100,000
4 queries, do you see that? Of the five seconds plus one day;
5 right?

6 A Yes. I drew a random sample.

7 Q Right. And that got you 549,169 queries. And then you
8 filtered that number even further, and you conducted your
9 analysis on over 443,731 queries; do you see that?

10 A Yes.

11 Q Okay. And I'm going to ask you to do the math in
12 your head, but 443,731 is .0000 -- five zeros -- 6 percent.
13 So 6 millionths of 1 percent, and that is the basis for your
14 apportionment analysis; correct?

15 A Random samplings means that these are representative of
16 the population, and 443,731 auctions is sufficient to
17 estimate the supply-and-demand elasticities.

18 Q Okay. So 6 millionths of 1 percent was sufficient?

19 A Yes.

20 MS. DUNN: Okay. Your Honor, I know that we have
21 reached the time for break. I expect to be finished, but I
22 would like -- if Your Honor wants to break, I just want to
23 make sure there's nothing left for my colleagues to do.

24 THE COURT: We break around 11:15. You've got a
25 few minutes.

1 MS. DUNN: Oh, I apologize then. In that case, I
2 pass the witness.

3 THE COURT: Ms. Wood.

4 REDIRECT EXAMINATION

5 BY MS. WOOD:

6 Q All right. Professor Simcoe, I know it may feel like a
7 long time ago, but yesterday afternoon you may recall some
8 questions from opposing counsel about your citations in your
9 report to a definition of display. And I believe there was
10 a reference to paragraph 20 of your opening report where you
11 describe some display advertising basics; do you see that?

12 A Yes.

13 Q And so there was a reference to the fact that you cited
14 some things like mobile apps and display ads on mobile apps;
15 do you remember that?

16 A Yes.

17 Q And do you agree that display ads can be shown on
18 mobile apps?

19 A Yes.

20 Q Can open-web display ads be shown on mobile apps?

21 A No.

22 Q Why not?

23 A Because they're not on the open web.

24 Q Okay. So let's turn to the portion of your report that
25 I don't think they showed you where you do discuss what

1 open-web display is; do you recall that?

2 A I recall writing it.

3 Q If you can look at paragraph 80 of your report.

4 MS. WOOD: And if we could pull that up on the
5 screen.

6 BY MS. WOOD:

7 Q It's on page 37, if that's helpful.

8 A I have it.

9 Q And in paragraph 80 of your opening report, when you --
10 under the heading "Open Web Ad Impressions," you talk about
11 what open-web display advertisements are; correct?

12 A Yes.

13 Q And you say: "Open-web display advertisements are
14 display ads delivered along with a web page within a user's
15 browser or on a personal computer or mobile device"; do you
16 see that?

17 A Yes.

18 Q And then you speak some more about proprietary tools
19 like Meta, which is Facebook, or Amazon; right?

20 A Yes.

21 Q And then you say: "And because it is delivered within
22 a web browser as opposed to a mobile app"; do you see that?

23 A Yes.

24 Q So you believe that mobile app is not included in the
25 relevant market as Professor Lee has defined it; is that

1 right?

2 A That's correct.

3 Q Okay.

4 MS. WOOD: Can we show Figure 4 which is PTX 1199.

5 BY MS. WOOD:

6 Q Do you recall defense counsel showed you this figure?

7 A Yes.

8 Q And what does this figure represent?

9 A That shows the take rates for AdX and seven other
10 exchanges for open-web display and video outstream
impressions on a monthly basis from 2014 to 2023.

12 Q Okay. And you testified that when you looked at this
13 figure, you referred to "a striking feature" being the red
14 line.

15 Why do you view the red line as a striking
16 feature?

17 A Well, it's very flat. It suggests that Google can set
18 the price exactly where it wants, there's no variation.
What's striking is that the other exchanges' effective take
20 rates display quite a lot of variability compared to that.

21 Q Okay. And do you recall being asked questions about
22 Figure 4 and it being limited to open-web display?

23 A Yes.

24 Q And did you use in your analysis the parameters of the
25 market that what Professor Lee testifies to?

1 A That's what I did, yeah.

2 Q Okay. So when it refers to video outstream
3 impressions, were those included in Professor Lee's market
4 definition?

5 A Yes. Those are included in the market.

6 Q And so what you included -- well, included in Figure 4,
7 how does that relate to the products that are in Professor
8 Lee's market and the products that are outside of Professor
9 Lee's market?

10 A These are take rates, average monthly take rates for
11 the products in the market.

12 Q Okay. Now, do you recall as you were examining --
13 MS. WOOD: If you can leave that up on the screen
14 for a moment, please.

15 BY MS. WOOD:

16 Q Do you recall that as you were examining the take rates
17 for these products, encountering an issue about Google's
18 charge of Open Bidding fees?

19 A Yes.

20 Q Let's just remind the Court, what was Google's Open
21 Bidding product?

22 A Open Bidding was a way for third-party exchanges to
23 submit real-time bids through -- well, into the final
24 auction. And so Open Bidding sort of is a way to -- it's
25 like a substitute for header bidding.

1 Q And Google charged a fee for that; is that right?

2 MS. DUNN: Objection, Your Honor. I didn't go
3 into Open Bidding at all in the cross.

4 MS. WOOD: I'll tie it up. Believe me, it's
5 related.

6 THE COURT: All right. I'll see if you can do it.

7 BY MS. WOOD:

8 Q Google charged a fee for Open Bidding; is that right?

9 A Yes. It was a 5 percentage point fee.

10 Q And the way that you calculated take rates for Figure 4
11 was to take the gross revenue and compare that to the net
12 revenue; correct?

13 A Yes.

14 Q And for each of these firms that appear in Figure 4,
15 were you able to remove any Open Bidding fee that was also
16 included?

17 A No.

18 Q So explain that to the Court, please.

19 A Well, I didn't have information that would allow me to
20 remove any fees that Google added on top for transactions on
21 Open Bidding. And so I only have net revenues and gross
22 revenues. So to the extent that Open Bidding fees are
23 included in here, that would make the other -- the take
24 rates too high. They would be overestimated, the take rates
25 of the other exchanges. So they -- in effect, they're not

1 getting all of the price that's shown on this slide.

2 Q And so how would you characterize the conservatism of
3 that fact for your analysis in Figure 4?

4 A It's a conservative assumption.

5 Q And why is that?

6 A Because, again, it reflects that when I don't have the
7 information, I make an assumption that's favorable to
8 Google, it leads to higher estimated take rates for the
9 other exchanges.

10 Q And the other exchanges on Figure 4?

11 A Correct.

12 Q Okay. Now, you also talked about with opposing counsel
13 how -- the evidence of different exchange features and
14 exchange quality; do you recall that?

15 A I think we discussed it several times.

16 Q Yes. And what evidence did you look at -- putting
17 aside the event study, which obviously you've testified
18 controls for quality. But putting that event study aside,
19 what evidence did you look at with respect to exchange
20 quality?

21 A Well, let's set aside scale. There's lots of evidence
22 about scale which is related to quality.

23 Q And where is that evidence from about scale?

24 A Well, the number of impressions that are used in my
25 event study, and there are figures in my report that show

1 relative scale.

2 I also did the robustness check where I looked at
3 charge exchanges versus all exchanges, which is a way of
4 thinking about whether scale is affecting -- sort of how
5 quality as scale affects take rates.

6 But I looked at a variety of --

7 Q Did you also -- sorry to interrupt.

8 Did you also review Professor Weintraub's report?

9 A Yes.

10 Q And did he have any discussions about scale in that
11 report?

12 A Yes.

13 Q Okay. And so what -- what did you find, based on your
14 review of the evidence, to be one of the most important
15 features of an exchange for its customers?

16 A Well, scale.

17 Q And why is that?

18 A Because that represents the ability of publishers to
19 match to advertisers and advertisers to match to publishers,
20 which is the core functionality of the product.

21 THE COURT: All right. This is a good time to
22 take the break now. We'll be back at 11:30.

23 (A brief recess was taken.)

24 THE COURT: All right. Ms. Wood.

25 MS. WOOD: Thank you. If we could pull up

1 PTX 1199 again.

2 BY MS. WOOD:

3 Q And I want you to focus on the gray line that is well
4 above the red line; do you see that?

5 A Yes.

6 Q And without obviously revealing names or anything, do
7 you understand what that gray line refers to?

8 A Yes. It's the take rate of a particular -- average
9 monthly take rate of a particular exchange.

10 Q And did you examine the number of impressions that were
11 transacted through that particular exchange?

12 A Yes. It's a very small exchange.

13 Q Okay. And was that one of the two exchanges that you
14 excluded when you narrowed it to large advertisers?

15 A Yes, it is.

16 Q And why, again, would you exclude an exchange like the
17 one that's in gray? I know you included it in your
18 comparables, but why did you exclude it from large
19 advertisers?

20 A When doing that check -- or when doing the analysis --

21 Q And if you need some more water, you can have more
22 water.

23 THE WITNESS: May I have a little more?

24 When I did the analysis, when I restricted the
25 sample to large advertisers, the idea was to explore whether

1 the scale had an effect on the take rate and to choose a set
2 of ad exchanges that was, in the sense of scale, more
3 comparable to AdX.

4 BY MS. WOOD:

5 Q Okay. And what about the purple one? Do you see the
6 purple line is well below the red line of Google; do you see
7 that?

8 A Yes.

9 Q And that, I assume, was another firm you looked at;
10 correct?

11 A Correct.

12 Q And what, if anything, did you observe about the number
13 of impressions that came through that purple firm?

14 A It's a particularly large one of the non-AdX exchanges.
15 The largest or maybe the second largest. Probably the
16 largest. So many, many more impressions.

17 Q Okay. And what, if anything, do you take from that
18 about the conservative of your -- conservative nature of
19 your comparables analysis?

20 A Well, I think it's -- as I said, I strive to make
21 conservative assumptions throughout.

22 Q Okay. There were some questions on cross-examination
23 this morning about disaggregating the quality of Google's
24 products from the conduct in which Google engaged; do you
25 recall that generally?

1 A Generally, yes.

2 Q And can you describe how you considered that question,
3 the disaggregation of quality of Google's conduct -- of
4 Google's products versus Google's anticompetitive conduct?

5 A Well, as a general matter, quality is something that I
6 think of as arising from characteristics of products. It's
7 not, itself, a characteristic. You need to think about
8 where quality comes from.

9 You know, in my analyses, particularly the event
10 study, I sought to control for the characteristics both
11 those -- the features that might be perceived as quality by
12 different kinds of customers and potentially costs using the
13 exchange effects.

14 MS. WOOD: Now, if we could put up on the screen
15 the document that was presented, Table 1 from the Israel
16 report, which I believe was then moved into evidence as
17 Exhibit -- Defense Exhibit 2533. We may need some
18 cooperation, please.

19 THE COURT: Make sure the redacted one. If that
20 was one of the ones that had redactions. I think it was.

21 MS. WOOD: I think that is correct.

22 So if we could just show that to the witness.
23 2533, Table 1 of Israel's report.

24 BY MS. WOOD:

25 Q Do you recall looking at this document?

1 A Yes.

2 Q And, again, this is confidential, so please don't refer
3 to any proper names.

4 But can you tell me, does this Table 1 include a
5 material sample of small-to-medium size business?

6 A I don't believe it does, no.

7 Q And how prevalent do you believe small-to-medium size
8 business are based on your analysis of Google Ads data?

9 A Very. They're extremely prevalent.

10 Q Okay. And do you recall another --

11 MS. WOOD: You can take that down now. Thank you.
12 I appreciate it.

13 BY MS. WOOD:

14 Q Do you recall you also looked at the Army and some
15 other federal agency advertisers and their use of DV360 and
16 Google Ads; do you recall that?

17 A Yes.

18 Q And would you characterize those federal agency
19 advertisers as small-to-medium businesses?

20 A No.

21 Q Okay. You were also asked some questions about a
22 number of exchanges that you did not include for which you
23 didn't have data.

24 Do you remember -- and I'll do the long list since
25 my colleague did the long list. TripleLift, Kargo, Medic,

1 Sonobi, Taboola --

2 THE COURT: You don't need to do the whole list.

3 BY MS. WOOD:

4 Q Okay. With respect to that long list of names, do you
5 know how many of those offer open-web display advertising on
6 their exchange?

7 A I don't have it at the top of mind, no.

8 Q Okay. Do you know whether they each actually offer
9 open-web display on their exchange?

10 A I can look and see if it's in my report.

11 Q Well, if you know. I understand --

12 A I don't know off the top of my head, no.

13 Q Okay. That's fine.

14 Now, you were also asked some questions about the
15 take rate that Google charges for app ads as distinct from
16 open-web display ads; do you recall that?

17 A Yes.

18 Q And are you aware that Google has a product called
19 AdMob, A-D-M-O-B?

20 A Yes, I'm aware of it.

21 Q And do you know what AdMob is?

22 A I assume it's a product related to app advertising.

23 Q And are you aware of the take rate that Google charges
24 for the AdMob product?

25 A I don't recall what it is as I sit here.

1 Q Okay. If I said to you that AdMob product charges
2 32 percent, would that refresh your recollection?

3 A That sounds familiar.

4 MS. WOOD: Okay. Let's pull up PTX 2066, which --
5 I'm sorry. I believe it's DTX 2066 from -- Figure 10 from
6 Professor Chevalier's report.

7 BY MS. WOOD:

8 Q Do you see that?

9 A Yes.

10 Q And when you were looking at Figure 10 from Professor
11 Chevalier's report, you referred to strategic
12 complementarity.

13 Can you explain what you mean with respect to
14 strategic complementarity with respect to this document?

15 A It means that if Google's take rate is above the take
16 rate it would charge in a competitive market, that price
17 increase creates incentives for other exchanges but also
18 increase their take rate. So that the take rate that we
19 observe in the data for other exchanges is above the take
20 rate that they would charge in a competitive market as well.

21 Q And in that sense, again, are these conservative
22 numbers?

23 A Yes. It means that you would expect the 16.2 percent
24 weighted average to be lower in a competitive market.

25 Q All right. And then you were also -- discussed some

1 differences between your event study analysis between
2 looking at the data on a worldwide basis and on a U.S.-only
3 basis; do you recall that?

4 A Yes.

5 Q Why did you believe that it was appropriate to look at
6 the data primarily on a worldwide basis in the first
7 instance?

8 A In the first instance, I view the worldwide market as
9 defined by Professor Lee as an appropriate geographic market
10 definition. Many ads that are sold from publishers outside
11 the U.S. are viewed by users in the U.S. and vice versa.
12 There can be U.S. publishers who create impressions that are
13 viewed outside the United States. The products are marketed
14 and -- around the world, and so I focused on the worldwide
15 market as the main one that I used in performing my
16 analysis.

17 Q And did you have occasion to observe that when Google
18 runs its own internal simulations, whether it use U.S.-only
19 data or worldwide data?

20 A I think I've only seen worldwide figures reported in
21 the Google documents that I've reviewed.

22 Q Okay. And do you recall when you were shown Figure 25,
23 the U.S. data, the relative difference between the 17.8 and
24 the 19.8, opposing counsel talked about that as just being
25 two-points difference; do you recall that?

1 A Yes.

2 Q And what is that two-point difference equate to in
3 terms of an overcharge percentage?

4 A It would be two percentage points on top of 17. So two
5 over 20 times. Probably 12 to 15 percent.

6 Q Would you consider that to still be an overcharge?

7 A Yes. That's a significant difference in prices. That
8 would be an overcharge.

9 Q Okay. Do you recall the discussion about the shift
10 from a first-price auction to a second-price auction?

11 A Yes.

12 Q And can you just explain, why is it that you would
13 assume, as an economist, that the shift from a first-price
14 auction to a second-price auction -- sorry, I got that
15 backwards. The shift from a second-price auction to a
16 first-price auction would not have a material impact on the
17 amount of shares?

18 A Because regardless of what is the auction format,
19 second price versus first price, the -- it's the high bidder
20 in economic models of auctions is always the bidder who has
21 the highest willingness to pay. And so the identity of the
22 winner doesn't change when you change the format of the
23 auction from second price to first price. They may pay a
24 different amount, but -- you know, depending on other
25 assumptions you make, but the identity of the bidder doesn't

1 change.

2 Q Okay. And just to be really clear, in a second-price
3 auction, what bid wins?

4 A The high bid.

5 Q The first bidder wins?

6 A Yeah. The highest.

7 Q The highest bidder wins.

8 And in the first-price auction, what bidder wins?

9 A Also the highest.

10 Q Okay. And as I understand it, the distinction between
11 a second price and a first price is not who wins, but how
12 much the winning bidder pays; is that right?

13 A It's how the price is calculated, that's correct.

14 Q Okay. You were also asked some questions about the
15 revenue equivalence theorem that Professor Milgram -- who I
16 think is here today -- wrote a study about; do you recall
17 that?

18 A Yes.

19 Q And how, if at all, do you believe the revenue
20 equivalence theory applies to impressions and not just
21 revenue?

22 A Well, I think it's a --

23 MS. DUNN: Your Honor, this was not in any report.

24 MS. WOOD: It was directly examined -- it was a
25 subject of cross-examination. He was directly asked the

1 question.

2 THE COURT: All right. The preface is incorrect.

3 You referenced a report.

4 Just ask the question.

5 MS. WOOD: I think I did just -- I said how, if at
6 all, is the revenue equivalence theory applicable to
7 impressions.

8 MS. DUNN: The reason I raise this -- no objection
9 to this witness answering the question so long as Professor
10 Milgram can respond, given that this is about to be an
11 undisclosed opinion.

12 THE COURT: All right. I'm not going to get into
13 that right now.

14 Go ahead and ask the question -- or answer the
15 question.

16 BY MS. WOOD:

17 Q How, if at all, does the revenue equivalence theory
18 apply to impressions earned by an exchange as opposed to
19 revenue earned by an exchange?

20 A The revenue equivalence theorem speaks to revenue. You
21 don't need the revenue equivalence theorem to understand the
22 point we just made about impressions.

23 Impressions -- the fact that the same bidder wins
24 a second-price or a first-price auction doesn't depend on
25 the revenues. Or the revenues could change without tell the

1 identity of the winner changing.

2 And so the expectation I have is based on, let's
3 say weaker assumptions, or it doesn't require the revenue
4 theorem -- the revenue equivalence theorem to be correct for
5 my expectation to be correct.

6 Q Now, you were also shown material from Google PTX 695,
7 which was a 2018 document where Google was preparing for the
8 shift to a first-price auction; do you recall that?

9 A Yes.

10 Q And based on your review of the material in this case,
11 did you find it common that Google would run experiments of
12 what they expected to see in advance of launching a change?

13 A Yes.

14 Q And is this an example of that?

15 A Yes, I believe it is.

16 Q Okay. And do you know whether, in connection with
17 PTX 695, Google was including other simultaneous changes
18 like the removal of last look or the shift -- the imposition
19 of Unified Pricing Rules when they made estimates about
20 these shifts?

21 A Well, my understanding is that Google tried to run
22 experiments to isolate the effects of individual policy
23 changes. It was sometimes hard to know exactly what they
24 did based on the documents that we had. But that's my
25 general understanding is that they're trying to understand

1 individual effects of individual policies. That's the point
2 of the experiments.

3 Q All right. And if we can look at paragraph 298 of your
4 report. This is where -- let's pull that up first.

5 This is where Google's counsel showed you a
6 footnote that cited to a document that was identified as
7 Plaintiffs' Exhibit 818, if you recall.

8 A I think so, yes. Right.

9 Q So we see in paragraph 298 of your report, you then
10 cite to -- sorry. Let me get the right page in my book.

11 You then cite to the document at Footnote 336; do
12 you see that?

13 A Yes.

14 Q And the document at 336 was PTX 818.

15 MS. WOOD: Sorry. Apologies, Your Honor.

16 BY MS. WOOD:

17 Q So that's on page 139 of your report. Are you with me?

18 A Yes.

19 Q Okay. Can you look on page 138 of your report, the
20 figure immediately right before paragraph 298; do you see
21 that?

22 A Yes.

23 Q And do you see that Figure, H.1, shows some information
24 about the RASTA results from introducing UPR; do you see
25 that?

1 A Yes.

2 Q And then it says Brattle analysis of a particular
3 document; do you see that?

4 A Yes, I see that.

5 Q And do you recognize that document as PTX 1035 that
6 plaintiffs' -- defense counsel showed you in your
7 examination?

8 MS. WOOD: And can we pull up 1035. PTX 1035.

9 THE WITNESS: Yes, I recognize this.

10 BY MS. WOOD:

11 Q Okay. And, sir, remember the numbers they were asking
12 you to look for were the 6.48 and the 4.25; do you recall
13 that?

14 A Yes.

15 Q And did those numbers -- in fact, if we could turn to
16 the page ending in Bates stamp 360. And do you see those
17 numbers there in green, 6.48 and 4.25?

18 A Yes, I do.

19 Q And those were the numbers that you were quoting in the
20 immediate -- immediately succeeding paragraph?

21 A Correct.

22 Q Okay. And while we're in this document, I wanted to
23 ask you about something I think they did not ask you about.

24 Can you turn to the page ending in Bates stamp
25 358.

1 And this is a Google document; right?

2 A Yes, this is a Google document.

3 Q And reflects analysis by Google's own employees; is
4 that right?

5 A That's my understanding.

6 MS. DUNN: Your Honor, this was not cited in
7 Professor Simcoe's report.

8 MS. WOOD: It's covered on cross, Your Honor.

9 THE COURT: But it was raised in cross, this
10 issue.

11 MS. DUNN: That's true. But the point -- I object
12 to eliciting opinions that are not based on parts of the
13 document he relied upon.

14 THE COURT: Well, I'm not sure she's doing that,
15 Ms. Wood is doing that. So overruled.

16 MS. WOOD: It also goes directly to --

17 THE COURT: You won. You don't need to respond.

18 MS. WOOD: Okay. Sorry. Sorry.

19 THE COURT: I may change my mind.

20 MS. WOOD: I apologize.

21 BY MS. WOOD:

22 Q If you could turn to the -- 358 is up on the screen,
23 and Google is looking at the expected impact of these
24 changes; is that right?

25 A Yes.

1 Q And what are the three categories of inventory Google
2 classifies here?

3 A The inventory types seem to be in the columns. It's Ad
4 Manager web inventory, Ad Manager app and AdMob.

5 Q Now, you were asked some questions about market output;
6 do you recall that? And whether UPR increased market
7 output?

8 A Yes.

9 Q Is market output accounted for in your event study,
10 Professor Simcoe?

11 A Yes.

12 Q And how?

13 A Market output gets both the outcome variable in the
14 regression, and I have the time effects in the regression
15 that allow for market expansion over the course of the
16 study, the event window.

17 Q And as a matter of economics, is it possible for any
18 competitive acts to increase output?

19 A Yes.

20 Q And can you give us an example of that?

21 A Oh. You could have someone sign an exclusive contract
22 with a customer that has anticompetitive effects but brings
23 a new customer into the market. Or, I mean, more generally,
24 we've just seen markets expand in spite of anticompetitive
25 conduct over the course of history. Right. There's been

1 the railroads. You know, when Standard Oil was a monopoly,
2 the oil market still expanded.

3 Q Now, you were also asked some questions about your
4 apportionment analysis, and, in particular, I believe you
5 were asked about taking 78.2 billion queries and filtering
6 them down to a random sample of close to half a million
7 queries; do you remember that?

8 A Yes.

9 Q And why is that appropriate?

10 A Well, there's two reasons. I mean, the reason it's
11 appropriate is that we took a random sample so that it's
12 representative from the larger population that we drew the
13 sample from, which was all the data that was provided.

14 Also, just as a matter of computation and costs,
15 it's easier to work with a smaller sample, but, you know,
16 because of the random sampling process that the results
17 won't be affected.

18 Q And is that -- how common is that in your profession in
19 econometrics to study things based on a
20 statistically-relevant sample?

21 A When you have data of this size, it's -- it -- almost
22 always you would take a random sample and work with the
23 random sample.

24 MS. WOOD: I'll pass the witness.

25 THE COURT: All right.

1 MS. DUNN: Thank you, Your Honor.

2 RECROSS-EXAMINATION

3 BY MS. DUNN:

4 Q Professor Simcoe --

5 MS. DUNN: If we could put paragraph 157 of
6 Professor Simcoe's report on the screen.

7 BY MS. DUNN:

8 Q So as a reminder, this is the paragraph where you
9 conclude that the switch or shift to the first-price auction
10 had little impact on market outcomes. And you recall being
11 asked some questions just now by plaintiffs' counsel about
12 your basis for this conclusion; right?

13 A That's the conclusion of Google's internal analysis.
14 They are not my own.

15 Q Is that not your opinion?

16 A This is -- I'm summarizing what Google's internal
17 analysis shows. But my own opinions are based on my own
18 analysis.

19 Q Right. So I'd like to discuss with you the basis for
20 what you're saying in this paragraph. Okay.

21 Now, plaintiffs' counsel just directed you to an
22 email that we discussed that was from September -- it says
23 September 2019 here, but it's really from September 2018;
24 right?

25 A I guess that's correct, yes.

1 Q Okay. And then separately she directed you to the
2 PowerPoint deck that we talked about earlier; correct?

3 A Yes. I recall talking about both of those documents.

4 Q Okay. And we can agree that those are the only two
5 documents you cite here; correct? The only two Google
6 documents that you cite?

7 A In this paragraph of my report?

8 Q Yes.

9 A I think that's correct.

10 Q Okay. And turning then to the PowerPoint itself, the
11 only slide that you cite is the slide that talks about last
12 look. And we talked about this earlier, it has the
13 asterisks that said that this study was conducted based on a
14 second-price auction; do you remember that?

15 A Yes, I remember that discussion.

16 Q Okay. So any other slide in this deck is not something
17 that you relied upon; correct?

18 A I don't think that's correct. I mean, I looked at the
19 deck.

20 Q Okay. You looked at the deck, but you only cite this
21 one slide; correct?

22 A I think that the citation is to this slide, yes.

23 Q Yes. And you didn't cite the slides that plaintiffs'
24 counsel pointed you to; correct?

25 A I looked at the deck, but this is the slide that I

1 cited. That's correct.

2 Q And you also didn't -- when you looked at market impact
3 from the shift to first-price auction, you didn't cite Slide
4 Bates Number 361.

5 MS. DUNN: And we can put that on the screen.

6 BY MS. DUNN:

7 Q And you see that says "plus 43 percent impressions";
8 correct?

9 A Yes, I see that.

10 Q Okay. I just wanted to make sure that was clear for
11 the record.

12 All right. You also talked about -- you were
13 asked questions about small-and-medium size businesses,
14 multi-homing; do you recall that?

15 A What I recall is that the exhibit from Dr. Israel's
16 report doesn't list small-and-medium size business.

17 Q Right. That particular exhibit that you looked at;
18 right?

19 A Correct.

20 Q But you're not testifying today that small-and-medium
21 size businesses do not also multi-home; right?

22 A My testimony is that it's -- with minor exceptions.
23 They're not doing it on Google Ads. It's not impossible for
24 them to multi-home.

25 Q Okay. And your opinion is small-and-medium size

1 businesses do not multi-home on Google Ads? That's your
2 testimony?

3 A We talked about the small exceptions to that.

4 Q Okay. And -- yes, we did.

5 And you also don't know, with respect to overall
6 revenue, how much overall revenue on Google Ads is
7 attributable to small-and-medium size business; right?

8 A As I sit here, I haven't studied that.

9 Q Okay. You were asked some questions about AdMob.

10 AdMob is not in your data; correct?

11 A Correct.

12 Q Okay. You were asked at your deposition: "Is quality
13 a reason that some firms can charge higher prices than other
14 firms?" And you responded: "In economics and in
15 differentiated product markets, relative quality is almost
16 definitionally something that can affect prices"; do you
17 recall that?

18 A Yes.

19 Q Okay. And you were asked a few minutes ago about a I
20 guess 10 or 15 percent increase in price.

21 And you said that was significant; do you recall
22 that?

23 A Yes.

24 Q In your -- are you testifying that a significant
25 increase in price is equivalent to an overcharge in the way

1 that you discuss it in your report?

2 A I did analyses to estimate an overcharge. An
3 overcharge can be a significant increase in price.

4 Q Right. Does it have to be?

5 A Prices can change, but I isolated the effects of the
6 conduct that I was asked to analyze. That's an overcharge.

7 Q Right. But my question is, are you saying that a
8 significant increase in price equates to being an
9 overcharge?

10 A Any 15 percent increase in price -- a 15 percent
11 increase in price in abstract need not necessarily be an
12 overcharge.

13 Q Okay. You also mentioned strategic complementarity; do
14 you recall that?

15 A Yes.

16 Q And you didn't do any specific analysis of strategic
17 complements; correct? You cite Google documents in your
18 report for that?

19 A I'd be surprised if I cite Google documents. I suspect
20 I cite to academic papers.

21 Q Okay. But you didn't do any specific analysis on that
22 topic? Any economic analysis; correct?

23 A No. I would characterize what I did as economic
24 analysis.

25 Q Okay. Did you do any analysis involving actual

1 numbers?

2 A I did not try to measure the strength of the strategic
3 complementarities.

4 Q Okay. And then you were asked some questions about
5 Open Bidding, and you were shown your Figure 4, and you
6 talked about Open Bidding; do you recall that?

7 A Yes.

8 Q It was the first question plaintiffs' counsel asked
9 you. All right.

10 Do you know if those other seven exchanges that
11 you talked about were using Open Bidding?

12 A I'm pretty -- I'm quite confident that some of them do,
13 yes.

14 Q Okay. And then in paragraph 276 of your report, in the
15 section broadly entitled "Data Cleaning," you say that you
16 removed AdX observations associated with Open Bidding from
17 calculations using this data set; do you see that?

18 A Sorry. Where are you referring to?

19 Q We can put it on the screen for you.

20 MS. DUNN: 276.

21 BY MS. DUNN:

22 Q Do you see that you removed any observations associated
23 with Open Bidding when you got the data set?

24 A Right. In the AdX data.

25 Q Right. You see that?

1 A Yes.

2 Q Okay. So you removed that, and then if you look
3 further down, paragraph 277, it says: "For each exchange,
4 you establish a set of market definition variables used to
5 filter to the relevant market and subsequent analyses"; do
6 you see that?

7 A I do.

8 Q And those are the things you filtered out for the other
9 exchanges; correct?

10 A I believe I filtered for AdX as well.

11 Q Right. But also for the other exchanges; correct?

12 A Yes.

13 Q Right. And do you see under transaction type where it
14 says Exchange Bidding; do you see that?

15 A Yes.

16 Q And you know Exchange Bidding is another name for Open
17 Bidding; correct?

18 A That's correct.

19 Q Right. So you filtered that out for the other
20 exchanges as well; correct?

21 A But not from -- when the other exchanges provide
22 information on net and gross revenues that I used to
23 calculate the take rate, it was not always possible to
24 determine whether the net revenues took out the Open Bidding
25 fees or not. And so the assumptions I make are conservative

1 in exactly the way I described a moment ago, that the net
2 revenues that they report may be higher if I don't take out
3 the Open Bidding.

4 Q But as you said, hard to tell; right? Hard to
5 distinguish?

6 A Well, yeah. And in that sense, my results are
7 conservative in the way I describe.

8 So this is really about the number of impressions
9 as opposed to the take rate, which I calculated off the
10 revenue data.

11 Q Understood. I'm just trying to understand the role of
12 Open Bidding.

13 And you said -- I just want to make sure we
14 understand. You said sometimes it was hard to distinguish;
15 right?

16 A It was not always clear whether the other exchanges had
17 removed the fees that they paid to Google for open or
18 Exchange Bidding when they sent us the revenue information.

19 Q Understood.

20 MS. DUNN: Your Honor, no further questions.

21 THE COURT: All right. That's fine. Thank you
22 for your testimony.

23 (Witness excused at 12:04 p.m.)

24 THE COURT: Next witness.

25 MS. WOOD: And we do reserve the right to re-call

1 Professor Simcoe.

2 THE COURT: Well, I assumed that. The professor
3 has heard this many times. He knows.

4 MR. TEITELBAUM: Good morning -- or afternoon,
5 Your Honor. Aaron Teitelbaum for the United States. And
6 the plaintiffs call Jonathan Bellack.

7 THE COURT: All right.

8 THE DEPUTY CLERK: Can you raise your right hand.

9 Thereupon,

10 JONATHAN BELLACK,
11 having been called as a witness on behalf of the plaintiffs
12 and having been first duly sworn by the Deputy Clerk, was
13 examined and testified as follows:

14 (Time noted: 12:05 p.m.)

15 THE DEPUTY CLERK: Thank you.

16 DIRECT EXAMINATION

17 BY MR. TEITELBAUM:

18 Q Good afternoon, Mr. Bellack.

19 A Hi.

20 Q Hi. I think we're passing binders out right now, so
21 there will be one coming to you shortly, but I think we can
22 get started in the meantime if that's okay with you.

23 So you --

24 THE COURT: Wait. Just for the record. Would you
25 please spell your name.

1 THE WITNESS: Sure. First name is Jonathan,
2 J-O-N-A-T-H-A-N. Last name is Bellack, B, as in boy,
3 E-L-L-A-C-K.

4 THE COURT: Thank you.

5 THE WITNESS: You're welcome.

6 BY MR. TEITELBAUM:

7 Q And, Mr. Bellack, you worked for Google for
8 approximately 12 years from about 2008 to 2020; is that
9 right?

10 A Actually until 2023.

11 Q 2023. Okay. My math is off.

12 And you've been deposed twice in this case; is
13 that right?

14 A Yes.

15 Q And each of those times you were represented by the
16 same attorney that represented Google?

17 A Yes.

18 Q And at the time of your deposition last year in 2023, I
19 don't need to say the exact number, but fair to say you
20 owned a fairly substantial amount of Google stock?

21 A Yes.

22 Q Let's talk just a little bit about your background
23 before Google.

24 You got an MBA from NYU in 2004; is that right?

25 A Yes.

1 Q And then you joined DoubleClick as a project manager
2 right after that?

3 A Yes.

4 Q And did there come a time during your work at
5 DoubleClick where you became the product manager for what
6 was then called DART for Publishers?

7 A Yes.

8 Q And was that product later renamed DoubleClick for
9 Publishers or DFP?

10 A Yes.

11 Q And when Google acquired DoubleClick in about 2008, you
12 came over to Google as a Google employee; right?

13 A Yes.

14 Q And did you come over with Neal Mohan and Scott Spencer
15 and others?

16 A Yes.

17 Q Okay. And in the earlier part of your time working for
18 Google in the display business, you reported to Neal Mohan;
19 right?

20 A Yes.

21 Q And then after that, did you report to Paul Muret,
22 M-U-R-E-T?

23 A Yes.

24 Q And then after that, did you report to Brad Bender?

25 A Yes.

1 Q Okay. And then fair to say around 2018, you moved on
2 to other parts of Google that were not specifically related
3 to the display business?

4 A At the end of 2018, yes.

5 Q Okay. If we could talk now about what your
6 responsibilities were while you were at Google and working
7 in the display business.

8 Would it be fair to describe your role as a
9 product manager leader?

10 A Yes.

11 Q Okay. And when you first came over to Google, the
12 product that you were responsible for was DFP; right?

13 A Yes.

14 Q And then in about 2014, AdX or the ad exchange was
15 added to your responsibilities?

16 A Yes.

17 Q And your predecessor as the product manager/leader over
18 the ad exchange was Scott Spencer; is that right?

19 A Yes.

20 Q Okay. So let's talk a little bit about that earlier
21 period.

22 Fair to say that people at Google would sometimes
23 refer to AdX and DFP as working on the sell-side?

24 A Yes.

25 Q Okay. And when you were the product manager leader

1 over the ad exchange and DFP, that was the product as it
2 operated in the entire world; right? Not just in a
3 particular country like the U.S.?

4 A If you're asking did we have business around the world,
5 yes.

6 Q Okay. So I have a couple of specific questions about
7 the sell-side more generally.

8 MR. TEITELBAUM: So if we could please show
9 Mr. Bellack what's been marked for identification as
10 PTX 904.

11 BY MR. TEITELBAUM:

12 Q And, Mr. Bellack, it's up to you. You can either look
13 in the binder or it will come up to the screen.

14 THE COURT: Any objection to 904?

15 MR. TEITELBAUM: And the metadata sheet in the
16 front, just for the record, is not part of the exhibit.

17 MS. DUNN: I don't see Mr. Bellack on this
18 exhibit. Am I missing something?

19 MR. TEITELBAUM: Well, I'm happy to lay a further
20 foundation, Your Honor.

21 THE COURT: Lay a foundation.

22 MR. TEITELBAUM: Okay.

23 BY MR. TEITELBAUM:

24 Q So, Mr. Bellack, we were talking about you worked on
25 the sell-side; is that fair?

1 A Yes.

2 Q And one of the things that would happen among sell-side
3 employees is there would be various training and
4 informational presentations from time to time?

5 A There would be different activities for different teams
6 and business units since there were a lot of different
7 functions working on the sell-side.

8 Q And those -- I mean, the training presentations within
9 the sell-side, those -- no reason to doubt that those -- no
10 reason to doubt their accuracy; is there?

11 A I would have no basis, because there were other teams
12 like sales and support that offered their own trainings that
13 I would not see or, you know, be able to tell you now if
14 they were accurate or not.

15 Q Okay. Well, looking at PTX 904, is there any reason to
16 doubt that this is an authentic copy of a Google training
17 presentation about the sell-side?

18 A Well, I've never seen it before, but it certainly looks
19 like one.

20 MR. TEITELBAUM: All right. Your Honor, I'm
21 offering this into evidence as a Google document, a
22 party-opponent statement.

23 MS. DUNN: Obviously no objection to authenticity;
24 however, I can wait for the questions to be asked for a
25 foundation objection.

1 THE COURT: Yeah. I think you need to be a bit
2 more specific. Have him look at the pages you want him to
3 look at and see whether or not they accurately reflect his
4 understanding of the sell-side, which I assume is why that's
5 being shown.

6 MR. TEITELBAUM: That's no problem, Your Honor. I
7 can also lay one additional foundation.

8 BY MR. TEITELBAUM:

9 Q Is it fair to say, Mr. Bellack, PowerPoint
10 presentations about the nature of the sell-side's business
11 were made and kept in the regular course of Google's
12 business?

13 A Yes.

14 Q And those presentations would generally be made by
15 someone with knowledge of the subject matter, right, that's
16 making that presentation?

17 A I think somebody making it would certainly assume they
18 have knowledge. Whether it was accurate knowledge or not, I
19 can't speculate.

20 Q Fair enough. I think that's the most that any of us
21 could do.

22 THE COURT: You were a manager. Did you ever
23 prepare one of these slide shows?

24 THE WITNESS: I prepared a very large number of
25 slide decks. I have no --

1 THE COURT: Does this one look like the kind of
2 deck you would have prepared?

3 THE WITNESS: No. This does not look like one
4 that I would have prepared.

5 THE COURT: You don't use colors?

6 THE WITNESS: It's because I'm looking where on --
7 it's 2535, it says Global Partnerships, EMEA and EMEA
8 Business Finance. Those are terms that I generally recall
9 to refer to the sales teams which did not report to me and
10 had large numbers of employees that conducted their own
11 activities. So I don't have any memory of preparing a
12 welcome-to-the-sell-side-world deck for the European sales
13 team.

14 THE COURT: Look at something like page 537.

15 THE WITNESS: Yes. What about it?

16 THE COURT: Is something like that something you
17 prepared?

18 THE WITNESS: Other decks like this, but I would
19 not have prepared a deck where the fifth question was what
20 does finance do.

21 THE COURT: Okay.

22 THE WITNESS: Because I was not in the finance
23 department.

24 MR. TEITELBAUM: I don't need to ask questions
25 about what does finance do, Your Honor, but I do believe

1 that this is a Google document. Authenticity's not in
2 question. It's clearly a business record of Google and the
3 party-opponent statement.

4 THE COURT: I'm going to permit it. It's in.

5 (Plaintiffs' Exhibit Number **904 admitted into evidence.**)

6 BY MR. TEITELBAUM:

7 Q All right. Mr. Bellack, if we could please turn to
8 Slide 10, which is -- actually, not Slide 10. The Bates
9 ending in 544. There we go. And it's also on the screen.
10 And just let me know when you're there.

11 A I'm there. I'm taking a look at it.

12 Q Sure.

13 And you see there at the top of the page there's a
14 schematic that's entitled "The Ads Ecosystem With Google
15 Products and Competition"?

16 A Yes.

17 Q Okay. And so there in the center we have AdX or ad
18 exchange and then other exchanges underneath; right?

19 A Yes.

20 Q And then on the far right, we have -- or the second
21 from the far right, we have ad server and Google Ad Manager,
22 360 a/k/a DFP, as well as non-Google; is that right?

23 A I see that, yes.

24 Q And then immediately to the left of the ad exchange, we
25 have DSP, Authorized Buyers, Google Ads, DV360 and

1 non-Google; is that fair?

2 A Yes.

3 Q Okay. And the ad exchanges are in the center of the --
4 in between the ad server and the DSP column; right?

5 A Yes.

6 Q Okay. Let's go to the next slide, which is ending in
7 545. And so there's a schematic here with a question who
8 are Google's competitors, with a sub-caption there, DV360
9 spend on third-party exchanges; do you see that?

10 A Yes.

11 Q And then there's a reference underneath in all of those
12 charts to all -- to a bunch of third-party exchanges; is
13 that fair?

14 A You mean the like AppNexus, Rubicon and everything?

15 Q Correct.

16 A Yeah. Those were other exchanges at the time.

17 Q Okay. And Amazon's not on there; is it?

18 A I do not see it, no.

19 Q Okay. And Facebook's not on there?

20 A No.

21 Q Okay. So let's move on to the slide ending in 548.

22 And this one's --

23 MS. DUNN: Your Honor, objection over the fact
24 that this witness has no particular foundation and is not
25 being asked questions other than what's on the document or

1 not on the document and it's already been admitted, so ...

2 THE COURT: Are you going to tie this up to
3 something?

4 MR. TEITELBAUM: Yes, Your Honor. And, more
5 importantly, I think we're very much nearing the end with
6 this document as well.

7 THE COURT: All right. Well, tie it up. Again,
8 it's in evidence, so we'll read it at some point.

9 MR. TEITELBAUM: Okay.

10 BY MR. TEITELBAUM:

11 Q And really just my last set of questions, Mr. Bellack,
12 is, you see here in this schematic it says: "Sell-side is a
13 different view of buy-side network spend. Revenue is
14 segmented by the type of inventory." And then there's a
15 reference to search, web, apps and instream video; is that
16 right?

17 A I see that, yes.

18 Q And that's because Google internally viewed those
19 different -- those different categories as different types
20 of display ad inventory; correct?

21 A I couldn't speak on behalf of Google from seeing this
22 document because it's not one that I remember being a part
23 of preparing.

24 Q Okay. But what about from your personal work at
25 Google, do you believe that this is a fair description of

1 the different types of inventory?

2 A I would say that what we were experiencing when I was
3 working on this business was that the organizations we
4 called publishers were involved in a very wide range of
5 creating and sharing content across many different
6 technology platforms. So the web, apps, video were all
7 highly interchangeable, and publishers, in my view, were
8 increasingly looking for solutions that could help them
9 across all of them.

10 Q Okay. But they're listed here as separate dollar value
11 categories; correct?

12 A I see them, yes. They are listed, and they each have
13 financial numbers next to them.

14 Q Okay. We can move on to a slightly different topic.

15 During your work in the sell-side, you were aware
16 of media attention to Google's dominance in the ad exchange
17 market; is that fair?

18 A I don't remember anything specifically phrased that
19 way.

20 Q Okay. Let's take a look at what's been marked for
21 identification as PTX 1507.

22 THE COURT: Any objection to 1507?

23 MS. DUNN: Court's indulgence, Your Honor.

24 MR. TEITELBAUM: And we're not offering the
25 article for the truth, Your Honor, just for context.

1 MS. DUNN: With that qualifier, no objection.

2 THE COURT: All right. It's in.

3 (Plaintiffs' Exhibit Number 1507 admitted into evidence.)

4 BY MR. TEITELBAUM:

5 Q And, Mr. Bellack, what this is is a -- one of your
6 co-workers forwards you an article here in December of 2014
7 entitled "Google's Display Advertising Dominance Raises
8 Concerns." Is that what that article is called?

9 A Yep.

10 Q And then what you do at the top of this email is you
11 forward it to several of your colleagues, including
12 Mr. Mohan and Mr. Spencer, and you label it attorney/client
13 privileged and confidential; right?

14 A Yes.

15 Q And then the text of your email after the greeting is
16 just forwarding this to you in case you hadn't seen it
17 already?

18 A Yes.

19 Q And you're not asking for any legal advice when you're
20 just forwarding a news article; are you?

21 A So one of the people on this, Sara Walsh, was a lawyer
22 working on competition-wide Google at the time. So I was
23 sharing it with her so she would see it, too.

24 Q Okay. So it was your practice that as long as there
25 was a lawyer in the communication, then it was appropriate

1 to mark something attorney/client privileged?

2 A I wanted Sara -- my memory of this is that I wanted
3 Sara to be aware of this article.

4 Q Okay. And so you thought because you were forwarding
5 something to an attorney, even if it was just a news
6 article, it was appropriate to mark it privileged?

7 A It looks like what I did.

8 Q Okay. And if we could just briefly bring up PTX 719,
9 which is already in evidence, but there's just one section
10 I'd like to discuss with Mr. Bellack, which is the Bates
11 ending in 002. And, actually, why don't we just briefly for
12 context, let's go to 003, please.

13 MR. TEITELBAUM: And just for everyone's
14 awareness, in the binder, everything's in ascending
15 numerical order.

16 BY MR. TEITELBAUM:

17 Q And Mr. Bellack, just let me know when you're at 003.
18 You see in the middle of that page there's the end of an
19 email from you?

20 A Yep.

21 Q And this is a thread between you and Chris LaSala and
22 Nitish Korula and some of your other colleagues on the
23 sell-side?

24 A Yep. That's what it looks like.

25 Q Okay. And so if we go to the top of your email, which

1 is on 002 from December of 2018 at 10:26 a.m., what you're
2 doing is responding to an email from Chris LaSala, you mark
3 it attorney/client privileged and confidential, and then you
4 say: "Bringing Ted into this for the legal POV because
5 we're now talking more in depth about pricing. Best
6 practice is to always get the legal POV on pricing
7 discussions, not to just have them in email"; did I read
8 that right?

9 A Yes.

10 Q So this is another example where you believed it was
11 appropriate? By including an attorney on the communication,
12 that was a sufficient justification to mark something as
13 privileged?

14 A Well, what I see in this case is that I wanted Ted's
15 point of view on this discussion because it was discussing
16 pricing which relates to contracts, and, therefore, might
17 have had a legal implication.

18 Q Okay. But there's no specific question to Ted; right?

19 A I had worked with Ted for a long time by now. I think
20 saying bringing Ted into this for the legal POV was a
21 shorthand way of saying, hey, Ted, what do you think about
22 this email?

23 Q Okay. So I think we can move on to a slightly
24 different topic.

25 You and your colleagues on the sell-side paid

1 attention to DFP's market share among other publisher ad
2 servers in the course of your business; is that fair?

3 A It was something I remember being discussed early in my
4 time at DoubleClick. By the time we got to Google, it was
5 not something that I was paying much attention to.

6 Q Okay. So fair to say, though, that the -- any reason
7 to doubt that the people who would have worked under you
8 were still paying attention to it?

9 A My encouragement to my team was to focus on
10 understanding our customers and trying to figure out ways to
11 improve our products to help our customers be more
12 successful and to make the broader ads ecosystem more
13 sustainable and to not worry too much about things like
14 market share.

15 Q Okay. So the answer to my question is no?

16 A So I think you were asking whether I thought the people
17 on my team would be doing it. I managed 20-plus people, I
18 can't speak to everything they were doing. What I can say
19 is, had they brought that up to me, my general advice was
20 don't worry about stuff like that. Focus on helping
21 customers.

22 Q Okay. Let's take a look at PTX 468, which I'll also
23 just note is covered by the stipulation that we have with
24 Google.

25 THE COURT: All right. Any objection?

1 MS. DUNN: Your Honor, no objection due to the
2 stipulation, but I don't believe Mr. Bellack is on this
3 email.

4 BY MR. TEITELBAUM:

5 Q Well, Mr. Greenberg was one of your colleagues on the
6 sell-side; is that right, Mr. Bellack?

7 A With all due apologies to Donny Greenberg, I don't
8 remember who that is.

9 Q Okay. What about George Levitte?

10 A George Levitte was on my team.

11 Q Okay. So was Bryan Rowley?

12 A He was not on my team.

13 Q Okay. But he was somebody you worked with with some
14 frequency; right?

15 A Yeah. I believe he was on Chris LaSala's team.

16 MR. TEITELBAUM: Okay. Just to make sure I
17 understand, Your Honor, is this exhibit admitted?

18 THE COURT: Were you ever aware of any discussion
19 about an Exchange Bidding Japan meeting?

20 THE WITNESS: I have no memory of a meeting like
21 that, no.

22 BY MR. TEITELBAUM:

23 Q Fair to say that Exchange Bidding was something that
24 you discussed during your work on the sell-side; right?
25 More generally.

1 A Yes.

2 THE COURT: All right. I'll let it in.

3 (Plaintiffs' Exhibit Number 468 admitted into evidence.)

4 BY MR. TEITELBAUM:

5 Q Okay. And just briefly, Mr. Bellack, if we look at the
6 bottom of the page ending in 551, so it's the second page,
7 just looking at the email from Mr. Greenberg, who was at
8 least on this thread with George Levitte who you recall
9 being on your team, the second sentence there is --
10 Mr. Greenberg writes: "Yes, DFP has near 100 percent market
11 penetration as an ad server, and it does in the U.S. as
12 well, but not necessarily as the auction runner for a given
13 impression."

14 And this appears to be talking about -- the
15 100 percent market penetration is a reference to the Japan
16 market; does that seem fair?

17 A Sorry. I'm still reading through it because --

18 MS. DUNN: Objection to asking Mr. Bellack what it
19 seems like. If he knows, no problem.

20 THE COURT: It just says what it says. I agree.
21 I'll sustain the objection.

22 MR. TEITELBAUM: Understood. We can move on to
23 something else, and we can take that document down.

24 BY MR. TEITELBAUM:

25 Q So let's switch gears and talk about header bidding for

1 a little bit. And we're going to skip all of the basics
2 because there's been plenty of testimony about that.

3 But you and other members of your team on the
4 sell-side recognized that header bidding would be beneficial
5 for publisher revenue; correct?

6 A What I was hearing in the market was that publishers
7 who were implementing header bidding were reporting
8 increased revenues on their Open Auction segment of their
9 inventory.

10 Q Okay. And so let's take a look at PTX 285, which is
11 also subject to the stipulation.

12 MS. DUNN: Court's indulgence.

13 THE COURT: Any objection to 285?

14 MS. DUNN: No objection.

15 THE COURT: All right. It's in.

16 (Plaintiffs' Exhibit Number 285 admitted into evidence.)

17 BY MR. TEITELBAUM:

18 Q And you see here at the very top of this email,
19 Mr. Bellack, you're cc'd along with Scott Spencer and
20 Mr. Lipkovitz and others?

21 A Yes.

22 Q And what Drew Bradstock writes here is: "Injecting in
23 multiple exchanges via header bidding means that pubs can
24 find the right auction dynamics for that moment. It can
25 also act as a higher floor on AdX, which, in turn, can drive

1 up overall yield for the pub"; did I read that right?

2 A Yes.

3 Q And so that's something that you were referring to
4 before, a reflection that people on your team recognized
5 that -- there was actually a reasonable basis for publishers
6 to think that they were getting increased revenue from
7 header bidding; right?

8 A That's what Drew, who was on my team, is clearly saying
9 in this email. We never ran a header bidding auction
10 ourselves because we weren't a publisher. And as you can
11 imagine, other exchanges weren't exactly sharing their
12 internal data with us. So we were reacting to what was
13 being reported to us in the market.

14 Q And some of the people that you worked with
15 specifically viewed header bidding, not just as good for
16 publishers, but as a benefit for competition more generally;
17 right?

18 A There were a very wide range of opinions about header
19 bidding. I'm sure people had that opinion as well as
20 others.

21 Q Okay. Let's take a look at PTX 239 which is also
22 subject to the stipulation.

23 THE COURT: Any objection?

24 MS. DUNN: No objection. Oh, no objection, Your
25 Honor.

1 THE COURT: All right. It's in.

2 (Plaintiffs' Exhibit Number 239 admitted into evidence.)

3 BY MR. TEITELBAUM:

4 Q And this is an email thread among yourself as well as
5 many of your colleagues on the sell-side; is that fair?
6 And, Mr. Bellack, I can just -- let me withdraw that
7 question and just point you to the bottom of the page ending
8 in 814.

9 Do you see an email from you from June of 2015?

10 A I do.

11 Q Okay. And then if we can go to the page ending in 816,
12 there's an email from Michelle Sarlo Dauwalter at the bottom
13 half of that page. She looks like she's responding to
14 Martin Pal; do you see that?

15 A I do.

16 Q And what she writes is: "If we are committed to
17 competition and we believe competition drives revenue, we
18 should allow for all sources of demand to compete fairly in
19 real time or as close to real as possible."

20 Did I read that right?

21 A Yes.

22 Q Okay. And then you respond a little ways up on the
23 bottom of the page ending in 814. You write:
24 "Respectfully, I don't think offering open RTB to everyone
25 would end the efforts to play games with ad selection."

1 Did I read that right?

2 A Yes.

3 Q And so you were opposed to offering real-time bidding
4 to other demand sources besides AdX at this time; is that
5 fair?

6 A No.

7 Q Okay. So you disagreed with what you wrote in that
8 email in June of 2015?

9 A Just from what you're quoting, what I'm saying is
10 offering open RTB to everyone would not end the efforts to
11 play games with ad selection. So I am giving an opinion
12 about what I think the behavior of different buyers and
13 industry participants would be if that happened.

14 Q Okay. But you did recognize that Google embracing
15 header bidding itself would be giving something away for
16 free; is that fair?

17 A My concern with header bidding as it first came out was
18 significant. I was very concerned about the impact on page
19 performance, especially on mobile because mobile was growing
20 much faster and there was a lot less bandwidth and
21 connectivity and processing power.

22 I also have experienced many years of both
23 reporting and anecdotal evidence that other exchanges in the
24 industry were playing games with their auction logic. They
25 were misrepresenting their fee structure. They were

1 modifying their auctions in ways that were not fair and
2 intended to advantage their own business.

3 And one of the huge problems I saw with header
4 bidding was all of the prices going into that client-side
5 code were self-reported by these exchanges.

6 Q Mr. Bellack, I think my question was much shorter than
7 that.

8 It's just, you did not want to fully embrace
9 header bidding because it would be giving Dynamic Allocation
10 away for free; right?

11 A No.

12 Q Okay. And so did you work with someone named
13 Drew Bradstock during your time on the sell-side?

14 A Yes.

15 Q And you believed him to be a competent employee?

16 A Yes.

17 MR. TEITELBAUM: Okay. Let's take a look at PTX
18 234, which is also covered by the stipulation.

19 THE COURT: All right. Any objection to 234?

20 MS. DUNN: No objection with the same caveat with
21 respect to this also quotes a news article, so we would ask
22 for that not to be taken for the truth.

23 THE COURT: All right. It's in.

24 (Plaintiffs' Exhibit Number 234 admitted into evidence.)

25 BY MR. TEITELBAUM:

1 Q And this is an email from Mr. Bradstock to you,
2 Mr. Bellack, as well as other people from July of 2015;
3 right?

4 A Yep.

5 Q And one of the things that Mr. Bradstock writes to you
6 is: "We do not want to fully embrace Exchange Bidding, as
7 we are giving away a cheap form of Dynamic Allocation for
8 free to all our competitors. This would have a large
9 distorting effect on our rate card, as one of the largest
10 advantages to AdX is real-time competition."

11 Did I read that right?

12 A Yes.

13 Q And that was written by someone on your team who
14 reported to you?

15 A Yes.

16 Q Okay. Now, despite the fact that it may not have been
17 profitable for Google to do this, Google did have the
18 capability to extend Dynamic Allocation to other demand
19 sources besides AdX; right?

20 A No.

21 Q Okay. You did not have the technical capability to do
22 that?

23 A At the time that header bidding started, no.

24 Q Okay. So let's take a look at PTX 275.

25 THE COURT: Any objection to 275?

1 MR. TEITELBAUM: Once again the metadata sheet is
2 not part of the exhibit, it's just in the binder for
3 reference.

4 MS. DUNN: I'm sorry, 275?

5 MR. TEITELBAUM: Yes.

6 MS. DUNN: Yeah. Mr. Bellack is not a custodian
7 of this document, and we would object.

8 MR. TEITELBAUM: I can lay --

9 MS. DUNN: He's also not -- it's distinct from
10 other things that we have seen in that it just seems like a
11 free-floating document as opposed to a slide deck for a
12 particular audience.

13 MR. TEITELBAUM: I can lay a foundation, Your
14 Honor. It is a Google-produced document.

15 THE COURT: All right. See if you can.

16 BY MR. TEITELBAUM:

17 Q All right. If we could please take a look at the last
18 page of this exhibit, Mr. Bellack. It's ending in 496.

19 You see under recommended next steps there's a
20 list of contacts that include Drew Bradstock and
21 Max Loubser, those are people that reported to you; right?

22 A Yeah. But they misspelled Max's last name.

23 Q Apart from that, we can agree that those are two people
24 that reported to you?

25 A Yes.

1 Q And if you take a look at the metadata sheet, on the
2 cover it notes that the custodian is Chris LaSala. That's
3 somebody that you worked with on the sell-side; right?

4 A Yes.

5 Q Okay. And any reason to doubt that this is an
6 authentic Google document based on the Bates number?

7 A No.

8 Q Okay.

9 MR. TEITELBAUM: I would offer it into evidence at
10 this time.

11 THE COURT: At this point, I'm going to admit it.

12 (Plaintiffs' Exhibit Number 275 admitted into evidence.)

13 BY MR. TEITELBAUM:

14 Q Really I just want to look at the very last paragraph
15 of the exhibit, Mr. Bellack. Underneath the heading
16 "Dustbin," there's a discussion of header bidding.

17 And I don't need to read all of this, but I'll
18 just note that at the beginning there's a discussion about
19 what header bidding is and that it's considered Prebid; do
20 you see that?

21 A Yes.

22 Q And then there's a notation that Google already -- I'm
23 just going to read more of it to avoid being incomplete.

24 It says: "Imagine the benefits of Prebid.js
25 pinging multiple exchanges for a bid, except no header

1 bidding code on your page is required, it all happens within
2 the ad server. Google already does this today through
3 Enhanced Dynamic Allocation (simplified explanation). DFP
4 selects a line item, evaluates its CPM, then runs the Google
5 Ad exchange to see if it can source a higher bid than that
6 CPM."

7 Did I read that right?

8 A Yes. What this document goes on to note is --

9 MS. DUNN: Your Honor, counsel's already
10 acknowledged Mr. Bellack's not on this document. At this
11 point, he really is reading in large parts of documents,
12 including from the dustbin.

13 THE COURT: Are you planning to ask a question
14 after you've read all this in?

15 MR. TEITELBAUM: Yes, Your Honor.

16 THE COURT: I'll permit it. Go ahead.

17 BY MR. TEITELBAUM:

18 Q So this last paragraph here, we have: "The problem for
19 publishers with this approach, of course, is that Google
20 only allows its owned-and-operated ad exchange to win those
21 impression opportunities. Imagine an ad server that selects
22 a line item, evaluates its CPM, and then makes calls to
23 multiple ad exchanges to source a bid to attempt to trump
24 the CPM of the selected line item. Google could build this,
25 but it chooses not to because of the revenue it gains by

1 being the only post-bid ad exchange."

2 So this is a reflection, actually, that at least
3 as of 2016, people on your team thought that Google did have
4 the technical capability to have Dynamic Allocation extended
5 to other demand sources and not just AdX; correct?

6 A So what's interesting with this is there are a bunch of
7 names on this document, and it was --

8 Q I think all I need is --

9 THE COURT: I allowed you some leeway; I am going
10 to let him answer the question.

11 MR. TEITELBAUM: Understood, Your Honor.

12 THE WITNESS: So there are a lot of people on this
13 document. I don't remember this document, so I don't know
14 whether people on my team wrote which parts of it. We are
15 talking about something in a headline of dustbin, which I
16 would normally consider to mean stuff that was rejected in
17 whatever the final version of the document is.

18 And what I also find kind of interesting is the
19 discussion here of having something where there's no header
20 bidding code on the page required where it happens in the ad
21 server, and it's something that Google could build is a
22 pretty good description of the Exchange Bidding feature that
23 I supported and we did actually build and release.

24 BY MR. TEITELBAUM:

25 Q Okay. And one of the reasons that Google did introduce

1 Exchange Bidding is because it viewed header bidding as a
2 threat to its core business; is that fair?

3 A A threat in the context that I was very focused on
4 delivering great value to our customers, and because our
5 customers were reporting that this was technology that they
6 were finding valuable, for us to not respond by trying to
7 deliver value would give them more reasons to try other
8 things.

9 MR. TEITELBAUM: Okay. So let's take a look at
10 PTX 470, which is also covered by the stipulation.

11 THE COURT: All right. Any objection to 470?

12 MS. DUNN: No objection, Your Honor.

13 THE COURT: All right. It's in.

14 (Plaintiffs' Exhibit Number **470 admitted into evidence.**)

15 BY MR. TEITELBAUM:

16 Q All right. And, Mr. Bellack, there's an email thread
17 here among a variety of your colleagues on the sell-side,
18 and you're copied in the cc line at the top; is that fair?

19 A Yes.

20 Q Okay. And then at the -- and this is from February of
21 2017?

22 A Yes.

23 Q Okay. And then at the end of this email thread, there
24 are meeting notes from a meeting type, product deep dive,
25 and then one of the things on the summary is header bidding

1 discussion. Do you see that at the bottom of the Bates
2 ending in 292?

3 A I do.

4 Q And then at the top of the Bates ending in 293, there's
5 a comment that "header bidding is a very important
6 discussion to have with all AdX buyers because it is a
7 threat to our core business."

8 Did I read that right?

9 A Yes.

10 Q And so that's consistent with what you were saying
11 before that Google recognized that it needed to do something
12 about header bidding because it was a threat to its core
13 business?

14 A Again, my point of view on it was my customers were
15 saying it was valuable to them, and I wanted to understand
16 why and ensure that we were trying to help them with their
17 business.

18 Q Okay. So we already talked a little bit about Exchange
19 Bidding, and I just have a couple questions for you about
20 it.

21 One of the things that Google did when it rolled
22 out Exchange Bidding was that it charged a 5 percent take
23 rate to other exchanges that were going to participate;
24 right?

25 A Yes.

1 Q And Google was not able to charge a take rate to demand
2 sources that were participating in header bidding; right?

3 A No.

4 Q Okay. And Google did not approach Exchange Bidding as
5 an opportunity to build something drastically better than
6 header bidding; right?

7 A I wanted to make Exchange Bidding as much better than
8 header bidding as I thought we possibly could.

9 MR. TEITELBAUM: Okay. And so let's take a look
10 at PTX 1543, which is also covered by the stipulation.

11 THE COURT: Any objection to 1543?

12 MS. DUNN: No objection, Your Honor.

13 THE COURT: It's in.

14 (Plaintiffs' Exhibit Number 1543 admitted into evidence.)

15 BY MR. TEITELBAUM:

16 Q And, Mr. Bellack, do you see this is a variety of
17 emails mostly from you from the October 2016 time period?

18 A Yes.

19 Q And does the other correspondence include Aparna Pappu
20 and Sam Cox and others?

21 A Yes.

22 Q And the subject is Jedi++ deck feedback; right?

23 A Yes.

24 Q Jedi++ was one of the various code names for Exchange
25 Bidding or Open Bidding?

1 A Jedi was the general code name. Jedi++ was a proposal
2 that my team and I were advancing with our leadership to
3 significantly improve the product.

4 Q Okay. So taking a look at the bottom of the Bates
5 ending in 604, which is the second-to-last page of the
6 document. It's towards the end of an email from you. And
7 you're proposing a rough idea of an exec summary and
8 parallel deck structure that you think would be effective.

9 Do you see where you write that?

10 A Yes.

11 Q And then the first thing that you say is: "A year ago
12 we reviewed header bidding and decided to pursue Exchange
13 Bidding (server side) with a goal to be slightly better than
14 HB; is that right?

15 A I see that, yes.

16 Q Okay. And then later on what you note in the same
17 section in the last little bullet point there: "Continued
18 HB innovation means our launch product will be inferior to
19 header bidding." And then there's a parenthetical reference
20 to a chart; do you see that there?

21 A Yes.

22 Q And so this was a recognition by you as one of the
23 leaders of the sell-side that Exchange Bidding was actually
24 not even slightly better than header bidding; it was worse;
25 right?

1 A So I wanted to launch Exchange Bidding with the best
2 possible technology. You can see from the "we" in the first
3 part about slightly better and in quotes, that was the
4 guidance that I received from leadership. And this was me
5 trying to help my team make the case for getting approval to
6 significantly improve Exchange Bidding and add a lot more
7 features to it.

8 Q Okay. So Google's leadership told you to only make
9 Exchange Bidding slightly better than header bidding as
10 opposed to much better?

11 A When we reviewed the options, that was the guidance we
12 got.

13 Q Before I keep asking you questions, Mr. Bellack, I'm
14 going to let you get some water.

15 And the reason that leadership didn't want you to
16 make Exchange Bidding a lot better than header bidding was
17 because they didn't want it to take revenue away from AdX
18 where the take rate was 20 percent; is that right?

19 A You'd have to ask them for their reasons.

20 Q Okay. Let's move on to a slightly different topic.

21 We've heard also a fair amount about Google Ads
22 demand and AdX and topics like that, so I just have a few
23 questions.

24 You personally viewed access to Google Ads demand
25 as a key reason why AdX could continue to attract customers

1 despite its high take rate; is that fair?

2 A It was one of the differentiators of AdX.

3 MR. TEITELBAUM: Okay. So let's take a look at
4 PTX 453, which is also subject to the stipulation.

5 THE COURT: Any objection to 453?

6 MS. DUNN: No, Your Honor.

7 THE COURT: All right. It's in.

8 (Plaintiffs' Exhibit Number 453 admitted into evidence.)

9 BY MR. TEITELBAUM:

10 Q So this is an email from you, Mr. Bellack, in January
11 of 2017; is that right?

12 A Yes.

13 Q And you're writing to some of your customers at Hearst
14 as well as Benita Stewart and Laurent Cordier at Google; is
15 that right?

16 A Yeah. This was jointly prepared by a team within
17 Google, and I was the person who sent it.

18 Q Okay. And this was because you were having -- or
19 Hearst was having some issues with Google's product, and you
20 were engaging with them?

21 A My memory is that the Hearst contract was up for
22 renewal, and we wanted to win the renewal.

23 Q Okay. So consistent with your testimony before, one of
24 the things that you told Hearst in order to get them to stay
25 with Google, in the middle of the page there next to the

1 Number 1, is: "By completing turning off AdX, you are
2 losing out on unique demand from our ad network, GDN, and
3 higher yields from our DSP, DBM"; right?

4 A Yes.

5 Q And that's just consistent with what you were saying
6 before that it was a key differentiator for AdX?

7 A It was one of the differentiators.

8 Q Okay. And you also made similar observations
9 internally when speaking to your colleagues about how --
10 what the significance was of Google Ads; is that fair?

11 A Yes.

12 MR. TEITELBAUM: Okay. So let's take a look at
13 PTX 403, which is also subject to the stipulation.

14 THE COURT: Any objection?

15 MS. DUNN: No objection, Your Honor.

16 THE COURT: All right. 403 is in.

17 (Plaintiffs' Exhibit Number **403 admitted into evidence.**)

18 BY MR. TEITELBAUM:

19 Q Okay. And, Mr. Bellack, this is, once again, an email
20 from you from October of 2016 entitled: Re: DVAA sell-side
21 review Jedi++ strategy; is that right?

22 A Yes.

23 Q And so at the top of this email, you make a couple of
24 observations. In the very second -- in the second sentence,
25 not the first, excuse me, pubs -- you say: "Pubs see GDN as

1 a kind of giant standing demand pool. It is valuable, but
2 you can't do deals with it or really game it much because no
3 bid landscapes, et cetera."

4 Did I read that right?

5 A Yes.

6 Q And that's just a reflection of the power that GDN had
7 as a differentiator for AdX compared to other ad exchanges?

8 A Basically publisher's side is a gigantic network.

9 Q Okay. And just to make sure we have our terminology
10 right, GDN is also sometimes referred to as AdWords or
11 Google Ads?

12 A It was really complicated at the time. Sometimes
13 AdWords or Google Ads was used for the user interface that
14 buyers would use to manage their business. And then GDN
15 tended to be the term internally for the business of
16 connecting buyers with publishers.

17 Q Okay. And then you go on in the second paragraph to
18 say: "GDN is half of AdX, the other half is DBM and other
19 DSPs, networks, et cetera. This is the half that pubs feel
20 they can influence and put in play - mess with floors, offer
21 private auctions, pitch agencies," and the sentence goes on.

22 Did I read that right?

23 A Yes.

24 Q And so this is just another observation that you're
25 making that Google Ads or GDN was -- Google had stronger

1 bargaining power with respect to that product compared to
2 DV360, for instance?

3 A That's not what this is saying.

4 Q Okay. But, in other words, what it's referencing is
5 that Google Ads is half of AdX, and the other half is demand
6 coming in from DSPs and other products?

7 A DBM, DSPs, AdX buyers, yes.

8 Q Okay.

9 MR. TEITELBAUM: We can take that document down
10 and move on to another topic.

11 BY MR. TEITELBAUM:

12 Q So during your time as a product manager in the display
13 business, Google owned DFP, a publisher-facing tool; right?

14 A Yes.

15 Q And Google owned an ad exchange, in the middle?

16 A In the middle of?

17 Q In the middle of the buy-side tools and the sell-side
18 tools. In the middle of the buy-side tools and the
19 publisher ad server.

20 A AdX was a business in its own right. Whether it was a
21 sell-side or a buy-side, capability would be -- probably we
22 don't have enough time to talk that one through.

23 Q Okay. And then Google also operated DV360 and Google
24 Ads as advertiser-facing tools; is that right?

25 A Yes.

1 Q Okay. And you personally, during your work at Google,
2 viewed this as potentially a problematic conflict of
3 interest; right?

4 A No.

5 Q Okay. So let's take a look at PTX 367, which is also
6 DTX 342.

7 THE COURT: All right. So then I assume there's
8 no objection then?

9 MS. DUNN: It's already in evidence.

10 MR. TEITELBAUM: Not according to my records, but
11 I would offer it at this time.

12 MS. DUNN: Oh. No objection, Your Honor.

13 THE COURT: All right. It's in.

14 (Plaintiffs' Exhibit Number 367 admitted into evidence.)

15 BY MR. TEITELBAUM:

16 Q And, Mr. Bellack, this is an email thread between you
17 and Mr. Muret and a variety of other Google employees from
18 September of 2016; is that right?

19 A Just looking through this, it looks like there was
20 back-and-forth with a lot of people, and then by the end,
21 which is the top, it was just Paul and I.

22 Q Okay. But then earlier on in the thread, the
23 back-and-forth included you and other people besides just
24 Paul?

25 A Yes.

1 Q Okay. And then if we can look at the bottom of the
2 page ending in 463, there's an email from you at 10:19 p.m.;
3 do you see that?

4 A Yes.

5 Q And then that email continues into the following page
6 ending in Bates Number 464.

7 A Yeah. It keeps going, and it's kind of this
8 hard-to-read interleaving of stuff I wrote, and then it
9 looks like stuff that Eisar responded with.

10 Q Yeah. You're responding to some questions that
11 Eisar -- or you're responding to some requests that
12 Mr. Lipkovitz is making. For instance, at the top of 464,
13 Mr. Lipkovitz says: "Please make a proposal for policy
14 relaxing, and we can discuss options"; right?

15 A No. Actually, my reading of this -- if you go back to
16 463, I write the part that says late night jetlag ramblings.
17 Then the part that says four things on my mind where there's
18 Number 1. And then when you get to 464, I believe that's
19 actually Eisar's response where he's saying I am willing to
20 move the line and then please make a proposal. So he's
21 responding to my Point 1 by saying please make a proposal
22 for policy relaxing.

23 Q Okay. Understood.

24 And then one of your -- in your response to
25 Mr. Lipkovitz, one of the things you say is: "Second, is

1 there a deeper issue with us owning the platform, the
2 exchange and a huge network? The analogy would be if
3 Goldman or Citibank owned the NYSE." That's the New York
4 Stock Exchange; right?

5 A Yeah. So just to clarify, I'm not writing that in
6 response to Eisar. That was part of what I believe was my
7 original email, and Eisar responded after that.

8 Q Okay. But we can agree that you wrote that?

9 A Yes.

10 Q Okay. And that was just a reflection of your concern
11 about the fact that Google had control across a variety of
12 different products within the ad tech ecosystem; right?

13 A So my memory of this -- as I mentioned earlier, when
14 header bidding started to grow, there were a huge number of
15 different opinions within Google about what it was and what
16 it meant and why people were doing it. And these late night
17 jetlag ramblings were my explorations of why is header
18 bidding doing well, why are people using it.

19 So my memory of this is I was speculating that
20 other organizations might be choosing to support things like
21 header bidding because they believed that it was
22 problematic. And you can see by the bottom, I'm sort of
23 speculating in particular on a neutral exchange with
24 Facebook, Amazon, Verizon, which I think had bought AOL at
25 that time. This was a point when Facebook was building its

1 own ad network and was rumored to be working on other kinds
2 of sell-side products. Amazon had a fast growing ad
3 network. And I forget this was before or after they had
4 announced their own ad marketplace.

5 So my memory of this was that I was kind of
6 concerned about all of this fragmentation and trying to
7 figure out why are people interested in header bidding, and
8 speculating that it could be that other industry
9 participants just consider the structure of Google's
10 business unacceptable to them.

11 We had, in particular, a lot of anecdotal evidence
12 that --

13 Q Let me just stop you there.

14 So you recognize that other industry participants
15 viewed Google's industry structure as unacceptable?

16 A I was speculating that the reason why other very large
17 media companies might be pursuing further fragmentation of
18 sell-side technologies would be that they didn't like
19 Google's structure and wanted to create something different.

20 Q Okay.

21 A The only direct knowledge I had was anecdotal reports
22 that Amazon really disliked buying inventory of any kind
23 through the ad exchange because they fundamentally did not
24 trust Google and would love to find a way to get out of
25 that.

1 Q Okay.

2 A But that was anecdotal.

3 MR. TEITELBAUM: And, Your Honor, before I pass
4 the witness, the only other thing I would like to do is,
5 pursuant to our stipulation with Google, offer PTX 639 into
6 evidence, which is cited in our pretrial proposed findings
7 of fact.

8 THE COURT: 639. There's no objection, Ms. Dunn?

9 MS. DUNN: Your Honor --

10 THE COURT: 639.

11 MS. DUNN: Oh, I'm sorry. 639.

12 MR. TEITELBAUM: It is also in the binder just for
13 convenience, I think.

14 MS. DUNN: One sec. Court's indulgence. I'm just
15 trying to find it.

16 No objection.

17 THE COURT: All right. That's fine.

18 (Plaintiffs' Exhibit Number **639 admitted into evidence.**)

19 MR. TEITELBAUM: And no further questions for
20 Mr. Bellack on direct examination.

21 THE COURT: All right. I think right now it makes
22 sense to break for lunch. All right.

23 MS. DUNN: Yes. Thank you, Your Honor.

24 THE COURT: How long do you anticipate your cross
25 taking? I'm not trying to rush you; I just want to get an

1 idea.

2 MS. DUNN: Understood. I plan to think over the
3 lunch break about whether to ask any questions of
4 Mr. Bellack or whether we can let this witness go, but I
5 would like to have the time to think about it.

6 THE COURT: All right. That's fine.

7 And then depending upon that, Mr. Lee is the next
8 person on your list; is that correct?

9 MS. WOOD: Yes, Your Honor.

10 THE COURT: All right. And then just so I can
11 plan for the afternoon, how long is the Lee examination
12 going to take?

13 MS. WOOD: So I'm hoping the Lee examination will
14 be under two hours. I don't --

15 THE COURT: All right.

16 MS. WOOD: I can't be positive about that, but
17 that's my expectation.

18 And then we also have -- we have substantially,
19 very substantially, narrowed the depo designations for the
20 remainder of our case in chief. We could also do those
21 first and then do Professor Lee, whichever the Court
22 prefers.

23 THE COURT: All right. Well, we'll see where we
24 finish with Mr. Bellack. I just -- again, my understanding
25 in terms of the time frames for the depositions, those are

1 just the plaintiffs' read-ins, but we don't -- do we have a
2 sense as to how long some of the defense read-ins might be?

3 MS. WOOD: I believe that we were able, in the wee
4 hours of the morning, to ensure that they now reflect both
5 sides, and I believe each one is fewer than ten pages of
6 read-in.

7 THE COURT: Then I think it makes sense to do the
8 read-ins after we finish with Mr. Bellack and before you put
9 Mr. Lee on. Because he's your last expert, I mean --

10 MS. WOOD: He's our last witness of any kind and
11 our last expert.

12 THE COURT: All right. And therefore, assuming
13 things don't become ridiculously long, the defense needs to
14 be ready to start your case tomorrow.

15 MS. DUNN: Your Honor, we will be ready to do that
16 tomorrow.

17 THE COURT: Excellent. Very good. We'll take our
18 break until 2:00.

19 (Court recessed for lunch at 12:58 p.m)

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21 I certify that the foregoing is a true and accurate
22 transcription of my stenographic notes.

23

24

Stephanie Austin

25

Stephanie M. Austin, RPR, CRR